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RECOMMENDED QUALIFICATION REQUIREMENTS AND MINIMUM SALARIES FOR PUBLIC HEALTH PERSONNEL IN CANADA*

First Revision of the

REPORT ON SALARIES AND QUALIFICATIONS OF PUBLIC HEALTH PERSONNEL

IN 1946 the Canadian Public Health Association established a Committee on Salaries and Qualifications of Public Health Personnel. At the request of the Dominion Council of Health this committee carried out a Canada-wide survey of official public health agencies.

The Committee's report† contained data regarding the various salary ranges offered for the different types of professional and technical personnel that make up the official public health agency. Information as to factors other than salary that affect income was included.

The second part of the report contained recommended educational qualification and experience requirements for the majority of jobs in health agencies and a suggested *minimum* salary level for each group or grade of position.

This report was adopted by the Dominion Council of Health, November 6, 1946, and distributed by the Department of National Health and Welfare.

The Executive Council of the Canadian Public Health Association, in approving the report at the annual meeting in 1947, recommended that the report be revised in 1948 in order to keep it up to date with present trends.

REVISION

During 1948 information regarding any salary or qualification changes that had been instituted since 1946 was gathered from nine Provincial health departments, the Department of National Health and Welfare, one hundred and thirty-three health units and twenty-one cities. This material is presented in the body of the revised report and in the appended tables. The form of the report has been changed so that pertinent data showing changed status of salaries and the recommendations regarding each group are concurrent and not in separate portions of the report as previously.

*This report was endorsed by the Dominion Council of Health on March 15, 1949, on the occasion of its fifty-sixth annual meeting.

†Canad. J. Pub. Health, 1947, 38:1.

The major portion of the data collected appears in the tables of the Appendix.

Another change has been made in the presentation of suggested minimum salaries. In the first report a sum was appended to each suggested salary to take care of the differential in salary levels that existed in various parts of Canada at that time, e.g., $2.000 \pm $100. The Executive Committee are now of the opinion that such a differential does not exist to the same extent, and as these $\pm$ sums tended to be misinterpreted in some areas, they have been deleted. Salaries that have been suggested for the various groups are *considered to be the minimum salary that should be used for that particular position or grade anywhere in Canada,* and areas or Provinces that have a generally higher economic status should adjust these suggested minima upwards.

DISCUSSION

The introduction to the first report stated that "the recruitment and maintenance of an efficient, qualified professional or technical staff by official health agencies has become a major problem." In the light of what has happened during the past two years, this is a misstatement. It should now read that "the recruitment and maintenance of staff is *the* major problem facing agencies today."

The facts outlined in the first introduction still hold true, and the picture, instead of brightening somewhat, is worse in nearly every area of Canada. Public health has not, and is not, competing successfully with other sources of professional income that are available in Canada or the United States.

While it will be seen from the tables that in most cases there has been an over-all increase in the salaries paid in 1948 in comparison with those in 1946, the increases are not comparable with those obtained by other workers in Canada and do not compensate for the increased cost of living generally.

In nearly all groups the initial minimum salary is inadequate and it has become increasingly apparent that the small salary range of most positions is a major deterrent to professional people who contemplate public service.

The Executive Committee wish to stress this fact. The recent graduate is usually content to accept a low salary during the postgraduate period and the first few years of service, but he or she will not even enter the field of public health when informed that the low starting salary is matched by an even more inadequate maximum salary, usually reached in a period of a few years. There is little or no monetary incentive to advancement for people already engaged in the practice of public health, and this is one of the main reasons why so many of our well-trained workers have left public health during the past few years. The small salary range, with increments usually confined to a period of five years or less, not only acts as a deterrent to recruitment but makes it very difficult to retain competent workers.

To persons contemplating entering public health, the fact that they will reach the maximum salary for their position in a few short years would seem to indicate that the authorities are of the opinion that the job is a short-term one, and that the incumbent reaches his maximum usefulness at the end of this short term.

The standards of service, the initial training requirements, the postgraduate requirements and the in-service training standards have been raised and maintained at a higher level during the past decade. These steps were taken by the public health workers themselves in an effort to improve the quality of both the service and the type of person giving the service to the public.

It is extremely difficult to maintain this attitude of improvement and advancement in the face of the attitude that the public health worker is apparently worth no more to the agency after twenty years of service than he is after three or five years' service. It can be argued that the worker may move to a higher grade and in this way improve his monetary status, but a glance at the maximum salaries of the highest grades in each group of professional or technical worker will show that, while there is a major increase in the qualifications and experience required for the

higher positions, there is no corresponding monetary increase to compensate for these higher qualifications.

The information regarding areas served by health agencies, populations and per caput expenditures which appeared in the initial report is not repeated here as there has been little relative change in these factors except a general increase in budgets in keeping with the raised salary levels. There is still a wide variation in population and area served and the per caput amount spent on health services.

GENERAL RECOMMENDATIONS

The data regarding factors other than basic salary which affect the earned income of the salaried individual are, to all intents, similar to those of the original report.

Recommendations regarding these factors are as follows:

1. That all professional or technical personnel employed by official health agencies be employed on the understanding that they will receive, upon the recommendation of their employer, an annual increment up to a maximum salary, with competence in the performance of duties as the obviously sound basis for such recommendations. Maximum salaries must be comparable with those obtainable in professional or technical jobs of similar responsibility in private enterprise in the same region.

2. That all such employees of official health agencies be allowed to participate in a superannuation or pension scheme, financed by contributions from employee and employer, or some equivalent method. It is desirable that these pension plans be made reciprocal and it is recommended that health agencies investigate the feasibility of reciprocal arrangements. It is recommended that after a minimum of twenty years' service provision be made to hold superannuation in abeyance for a person changing employment until the retirement age adopted by the particular scheme, after which payment would begin on the basis of contributions made.

3. That automobiles be provided or car allowances be granted personnel whose duties require them to travel. Such allowances should not be regarded as forming part of the salary. The ownership of a car should not be a condition for employment. Where it is desirable for personnel to own their own cars and the agency does not provide a car, arrangements for financing the car should be made by the agency; this is most important for recruitment purposes.

4. That professional or technical employees receive, upon the completion of one year's employment, three full weeks' holidays with pay per annum; and in the case of personnel whose duties require them to be on call evenings and holidays, that this period be extended to four full weeks with pay, or that "in lieu" time or overtime pay be arranged to compensate for this extra work.

5. That employees receive cumulative sick leave equivalent to 1½ days per month and that pay and allowances equivalent to a percentage of unused cumulative sick leave be given as a bonus to employees upon leaving or superannuation.

6. That provision be made in the budget of the health agency for professional training of personnel at postgraduate or refresher courses and attendance at scientific meetings.

7. That when qualified, experienced personnel are newly employed, their starting salary should be at the level that their previous experience would indicate.

RECOMMENDATIONS BY OCCUPATION

Each profession and technical occupation has been divided into salary groups with responsibility, experience, and training as the factors which govern the variation between groups. Personality qualifications have not been included in the recommendations, as their value can only be judged by the employing agency.

Authorities may find that the recommended groups in a specific profession do not suit their needs, in which case the groups can be adapted to fit these needs. In order to classify those positions that are not specified, the authorities concerned should match the qualification requirements and responsibility of the position in question with those of one of the recommended groups in this report. In this way they will be able to classify the position under discussion.

It is realized that there are many persons now engaged in the practice of public health who have not received the formal educational training recommended, and it is to be understood, in interpreting the recommended qualifications, that practical field experience obtained under competent supervision can be considered in special cases as an alternative to formal education and that these recommended qualification requirements may be adjusted to include those persons already employed who are without formal training but giving creditable service in public health. *However, the recommended qualifications should be adhered to when new appointments are being made.*

It should be noted that the term "basic minimum salary" in this report means the minimum salary as laid down for a specific position exclusive of such items as cost-of-living bonus, car or room and board allowances, etc.

It is strongly recommended that the maximum salary of one group should not be limited to the level of the minimum of the next higher group. This is a fault common to many salary schedules of government agencies and leads to dissatisfaction of senior employees of the lower groups who may not have the educational qualifications for the next higher group but who have given long years of service and should be recompensed by increments in keeping with their service.

A. PHYSICIANS IN PUBLIC HEALTH AGENCIES

There were one hundred and five more positions for physicians reported in 1948 than in 1946, giving a total of 596. The distribution of these positions is shown in Appendix A, Tables I and II. A comparison of the salary ranges in 1946 and in 1948 is shown in Chart A. It will be noted that there has been some improvement in salary ranges during the two-year period, but the fact remains that while 83 per cent of the jobs available in 1946 were limited to a maximum salary of $5,500, 88 per cent are limited to $6,000 or less as a top salary in 1948. In other words, only 12 per cent of all the physicians engaged in public health can expect to make more than $6,000 per year, and only approximately 3 per cent can expect to make over $7,000.

The discouraging aspect is not only that 46 per cent of the jobs offer a starting salary below $4,500, but also that 73 per cent are limited to a maximum salary of $5,500 or less.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

Group IA

Basic MINIMUM Salary $4,250 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes physicians engaged in public health as assistant clinicians in treatment or public health clinics; junior school physicians; junior assistants in a health department at a provincial or city level; and other positions that do not require specialty training.

Qualifications:

Graduation in medicine from an approved university or registration by a provincial licensing authority, and a minimum of one year's rotating internship in a general hospital.

Group IB

Basic MINIMUM Salary $4,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

As outlined for Group IA.

Qualifications:

In addition to the qualifications required for Group IA, at least one year in general practice.

It is from the above groups that personnel can be selected for postgraduate training in public health or one of the allied specialties.

Group II

Basic MINIMUM Salary $5,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes physicians in such positions as medical officer of health of small cities or assistant health officer in health units; assistant to the director of a division at city or provincial level; district health officer in a large city; junior specialists in specialist services such as mental hygiene, maternal and child hygiene, tuberculosis, laboratories, etc.

Qualifications:

In addition to the qualifications required for Group I, postgraduate training in public health of at least one year at an approved university or, in the case of the allied specialties, postgraduate training of at least one year, recognized by the Royal College of Physicians and Surgeons of Canada as leading to certification in the specialty indicated; or equivalent supervised in-service training in a public health agency or in the specialty indicated.

Group IIIA

Basic MINIMUM Salary $6,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Group IIIB

Physicians with several years of experience in a Group III position should be offered at least a minimum of $7,000, with increments as above, when newly employed by another agency, if their training and experience warrant it.

CHART A

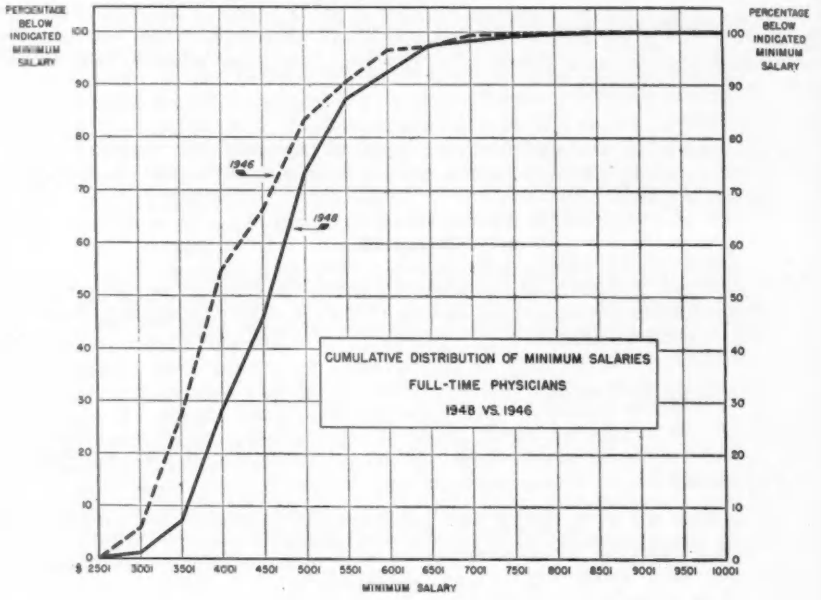

TABLE I

PERCENTAGE DISTRIBUTION OF MAXIMUM AND MINIMUM SALARIES
FULL-TIME PHYSICIANS—1948 vs. 1946

Amount	*Maximum*		*Minimum*	
	1948	1946	1948	1946
$2501 - 3000	1.2	—	1.2	5.9
3001 - 3500	—	23.4	6.0	21.4
3501 - 4000	18.5	11.4	21.0	27.5
4001 - 4500	10.2	14.1	17.6	12.2
4501 - 5000	10.4	17.9	27.7	16.3
5001 - 5500	32.9	15.9	13.8	7.1
5501 - 6000	15.1	10.2	5.0	6.1
6001 - 6500	3.9	1.2	5.4	0.8
6501 - 7000	4.5	3.9	0.8	2.1
7001 - 7500	2.3	1.4	0.7	0.2
7501 - 8000	0.5	0.2	0.5	0.2
8001 - 8500	—	—	0.2	—
8501 - 9000	—	—	—	—
9001 - 9500	0.2	—	—	—
9501 - 10,000	0.3	0.4	0.2	0.2
Total	100.0	100.0	100.0	100.0
Numbers	597	491	597	491

Duties—Groups IIIA and IIIB

This group includes such positions as medical officer of health of a health unit or medium-sized city; director of a division in larger cities or similar divisions in provincial departments; chief specialist of services, such as tuberculosis, mental hygiene, etc., at the larger city level; regional consulant specialist for several health units or assistant chief of such services in a provincial service.

Qualifications:

In addition to the qualifications required for Group II, at least three years' training and experience in a public health department or in the specialty indicated.

Group IV

Basic MINIMUM Salary $8,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as medical officer of health of large cities; assistant medical officer of health of metropolitan cities; regional medical officer of health supervising several health units; assistant deputy minister; director of a senior division or chief specialist in the senior or larger specialty groups at provincial level.

Qualifications:

In addition to the qualifications required for Group II, at least six years' experience in public health and, if in an allied specialty, certification as a specialist by the Royal College of Physicians and Surgeons of Canada. Experience in administration or research, depending upon the requirements of the position, is also necessary.

Group V

Basic MINIMUM Salary $10,000 plus an annual increment of at least $400 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as provincial deputy minister of health or chief medical officer, and medical officer of health of metropolitan cities.

Qualifications:

In addition to the qualifications required for Group IV, a total of ten years' service in public health and proven administrative ability.

B. PUBLIC HEALTH NURSING PERSONNEL

There were 1,465 public health nursing personnel of official health agencies reported in 1948, which is only an increase of 45 over the 1946 figure. The distribution of these positions is shown in Appendix B, Tables I and II.

Chart B shows, at first glance, what appears to be a substantial increase in starting salaries for positions requiring qualified public health nurses. This is somewhat encouraging, but analysis reveals that the shift is only in an amount of

TABLE II

STAFF NURSES REQUIRING PUBLIC HEALTH QUALIFICATIONS
RELATION OF MAXIMUM AND MINIMUM SALARY

Minimum Amount	*Maximum Amount*														
	1501-1600	1601-1700	1701-1800	1801-1900	1901-2000	2001-2100	2100-2200	2201-2300	2301-2400	2401-2500	2501-2600	2601-2700	2701-2800	2801-2900	*Total*
$1301 - 1400	—	—	42	—	—	—	—	—	—	—	—	—	—	—	42
1401 - 1500	1	7	10	—	—	—	—	—	—	—	—	—	—	—	18
1501 - 1600	—	—	4	15	7	—	—	—	—	—	—	—	—	—	26
1601 - 1700	—	6	5	8	41	19	—	3	—	14	—	—	—	—	96
1701 - 1800	—	—	20	—	15	—	71	26	—	—	—	—	—	—	132
1801 - 1900	—	—	1	12	6	78	150	4	8	19	—	—	—	—	278
1901 - 2000	—	—	—	—	—	—	19	36	69	—	—	—	—	—	124
2001 - 2100	—	—	—	—	—	—	—	—	6	—	163	—	—	—	169
2101 - 2200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2201 - 2300	—	—	—	—	—	—	—	—	12	—	7	—	—	—	19
2301 - 2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2401 - 2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2501 - 2600	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
Total	1	13	82	35	69	97	240	69	95	33	170	—	—	6	910

CHART B

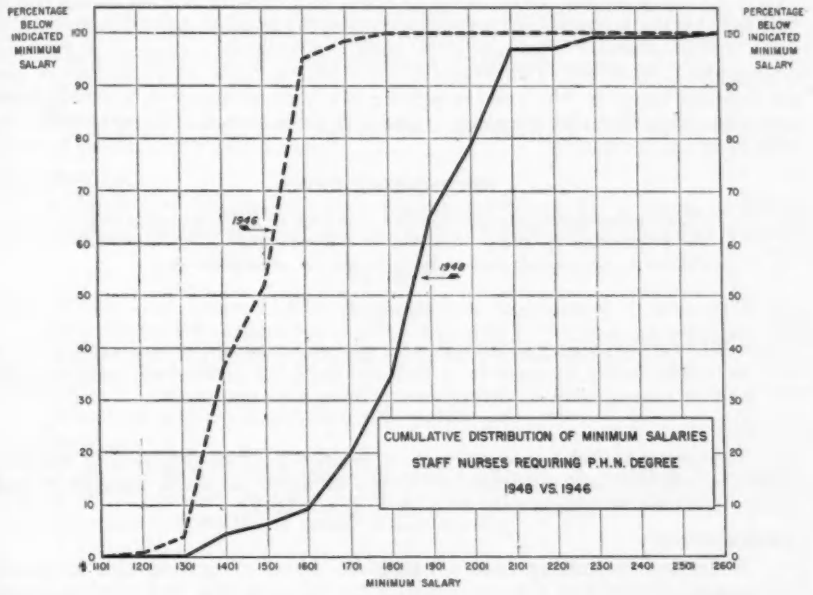

TABLE III

PERCENTAGE DISTRIBUTION OF MAXIMUM AND MINIMUM SALARIES
STAFF NURSES WITH PUBLIC HEALTH QUALIFICATIONS, 1948 vs. 1946

Amount	*Maximum*		*Minimum*	
	1948	1946	1948	1946
$1101 - 1200	—	—	—	1.0
1201 - 1300	—	0.1	—	3.1
1301 - 1400	—	—	4.6	32.3
1401 - 1500	—	2.9	2.0	15.5
1501 - 1600	0.1	5.8	2.9	43.3
1601 - 1700	1.4	6.6	10.5	3.4
1701 - 1800	9.0	30.7	14.5	1.4
1801 - 1900	3.8	37.2	30.5	—
1901 - 2000	7.6	5.4	13.6	—
2001 - 2100	10.7	10.8	18.6	—
2101 - 2200	26.4	0.4	—	—
2201 - 2300	7.6	0.1	2.1	—
2301 - 2400	10.4	—	—	—
2401 - 2500	3.6	—	—	—
2501 - 2600	18.7	—	0.7	—
2601 - 2700	—	—	—	—
2701 - 2800	—	—	—	—
2801 - 2900	0.7	—	—	—
Total	100.0	100.0	100.0	100.0
Numbers	910	794	910	794

approximately $300 a year. While this is a start in the right direction, study of Table II indicates that the encouraging trend in minimum salaries is nullified by the fact that the salary ranges are usually from $200 to $400. Approximately 60 per cent of staff positions requiring public health training are limited to a maximum salary of $2,200 or less. The maximum is reached in a few years and there is then no monetary incentive. Merit and experience should be compensated, and until health agencies realize this, they are going to lose their better personnel to agencies that are willing to pay for quality.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

Group I

Basic MINIMUM Salary $1,800 plus an annual increment of at least $100 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as registered nurses employed in treatment clinics of official health agencies and nurses employed in health agencies as staff nurses who have no special qualifications in public health.

Qualifications:

A diploma in nursing from a recognized school of nursing plus provincial registration. Nurses who show an aptitude for public health work can be selected from this group for postgraduate training in order to qualify them for advancement to other groups.

Group IIA

Basic MINIMUM Salary $2,000 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes recently qualified staff nurses employed in general public health or one of the specialized branches of public health.

Qualifications:

A degree in nursing including public health from a recognized university school of nursing; or a diploma in nursing from a recognized school of nursing plus at least one year's postgraduate training in public health nursing; or supervised postgraduate training in the specialty indicated. Nurses from Group I who have received supervised in-service training in public health or one of its allied specialties equivalent to the postgraduate training mentioned, may be included in this group.

Group IIB

This group consists of those staff nurses who have the same basic qualifications as Group IIA, but in addition have had at least three years of experience in public health work. In a new job with another agency, this group should be started at least at the $2,400 level, with increments as above. In addition, special recognition by annual increment above the normal maximum of the group should be granted to senior members of Group IIB who prefer to remain at staff level, provided they have shown outstanding ability in the performance of their duties.

Group III

Basic MINIMUM Salary $2,700 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes senior staff nurses responsible for some supervision of a group of public health staff nurses.

Qualifications:

In addition to the qualifications required for Group II, a course in public health nursing supervision and at least two years' experience in public health nursing.

Group IV

Basic MINIMUM Salary $3,000 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes supervisors and consultants.

Qualifications:

In addition to the qualifications required for Group II, a course in administration and supervision in public health nursing at an approved university and at least three years' experience in public health nursing.

Group V

Basic MINIMUM Salary $3,500 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes directors of public health nursing in health units or cities with a nursing staff of 25 or over; directors of public health nursing in smaller provinces, assistant directors of public health nursing in large cities or provinces; educational supervisors at provincial level.

Qualifications:

In addition to the qualifications required for Group IV, a minimum of six years of experience in public health nursing, three of which should have been as a supervisor of nurses or an equivalent responsibility, and should include an adequate period of administration. It is desirable that this group should be drawn in the main from the nurses who have obtained a university degree in nursing.

Group VI

Basic MINIMUM Salary $5,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes directors of public health nursing at provincial or large city level.

Qualifications:

In addition to the qualifications required for Group IV, a minimum of ten years' experience in public health nursing, of which at least two years should have been in an administrative capacity and three years in supervision or equivalent responsibility.

C. ENGINEERS IN PUBLIC HEALTH AGENCIES

The salary levels in comparison to those reported in 1946 show only a very slight upward trend in the minimum salaries offered engineers of both groups. The maximum levels are a little better by comparison. (See Table I, Appendix C, and 1946 report.)

The ever-increasing importance of the trained public health engineer in the public health field, plus the fact that industry and private enterprise offer the young graduate a much more lucrative field, makes it essential for public health agencies to try to meet some of the competition. It is not logical to demand postgraduate training and increase the responsibility of a job without increasing the pay. Eighty per cent of the engineering positions still cannot expect to receive more than $4,500 as a maximum and over 50 per cent are limited to $4,000 or less.

Here again, stress is laid upon the fact that, while the initial salaries for the junior groups is important in that it must compare favourably with other sources of professional income, much more stress must be placed on the expected maximum. It is the limited economic future that discourages both prospective applicants and present staff.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

Group I

Basic MINIMUM Salary $3,000 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes engineering positions that require a graduate engineer with no specialized experience or postgraduate training to perform routine engineering duties under the supervision of a qualified public health engineer.

Qualifications:

Graduation in engineering from an approved university.

Group II

Basic MINIMUM Salary $4,000 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant public health engineers employed in public health engineering under supervision at provincial or large city level.

Qualifications:

In addition to the qualifications for Group I, one year of postgraduate training in public health or sanitary engineering at an approved university. In exceptional cases, Group I engineers who have had at least four years' supervised experience in public health or sanitary engineering may be included in this group.

Group III

Basic MINIMUM Salary $5,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as public health engineer of medium-sized cities, regional consultant for several health units, or assistant director of public health engineering at provincial level.

Qualifications:

In addition to the qualifications of Group II, five years' experience in public health engineering in a public health agency.

Group IV

Basic MINIMUM Salary $6,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as director or senior specialist of public health engineering at provincial or large city level.

Qualifications:

At least one year and preferably two years of postgraduate training in public health engineering and, in addition, eight years' experience in the field of public health engineering; in the administrative positions, two years of administrative experience.

D. DENTISTS IN PUBLIC HEALTH AGENCIES

Three more positions for dentists were reported in 1948, making a total of 43. The salary distribution is shown in Appendix D, Table I. The picture has improved somewhat: in 1946 over 50 per cent of the positions were limited to a maximum salary of $4,000 or less, and in 1948 less than 10 per cent were so limited. The salary range has moved approximately $500 upwards.

It is encouraging to note that more agencies now require dental public health training for the director of their dental program. This increased training requirement will have to be met by increased salaries if this important field is to be made attractive.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

Group I

Basic MINIMUM Salary $3,750 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as staff dentist carrying out a dental program under supervision in a public health agency.

Qualifications:

Graduation in dentistry from an approved university.

Group II

Basic MINIMUM Salary $5,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as director of dental public health in departments of health in cities up to 75,000 population or in health units.

Qualifications:

In addition to the qualifications of Group I, three years' experience in the practice of dentistry and one year's postgraduate training in dental public health at an approved university.

Group III

Basic MINIMUM Salary $6,000 plus an annual increment of $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as deputy director of dental divisions on the federal level or as director of dental divisions on the provincial level; or as director of dental divisions in departments of health in cities of 75,000 population and over, or as provincial regional director or consultant to a group of health units.

Qualifications:

In addition to the qualifications for Group III, at least two years' administrative experience in dental health services.

E. PUBLIC HEALTH LABORATORY PERSONNEL

There were 157 professional positions, not including physicians, reported in this survey as against 90 in 1946, and there was also an increase of technical positions from 281 to 299—a total of 456 positions. The distribution of these positions is tabulated in Appendix E, Tables I and II.

The wide range of salaries of the senior personnel and also of the assistant group indicates a wide range of responsibilities, due in the main to the differences in the size of public health laboratories.

All personnel employed by laboratories were not included in this survey as it was deemed unnecessary to include the personnel who, though employed in a public health laboratory, were not engaged in the technical work of the laboratory.

There has been an encouraging upward trend in the salaries of the professional personnel. In 1946, 70 per cent of this group were limited to $3,000 or less as a maximum salary, whereas in 1948 nearly 50 per cent of the senior positions have a maximum over $4,000 and in the other professional positions there is a corresponding upward trend.

The technical group have not fared as well, as shown in Table II, and there is no marked difference between the salaries offered in 1946 and in 1948. Since the 1948 figures were compiled it is understood that several agencies have had to raise the salary levels of the technical groups, but information was not available in time to be included in this report. The levels are reported to be better but still far from adequate.

Since the 1946 report, the Committee on Professional Education issued a report on the Educational Qualifications of Public Health Laboratory Personnel. This was adopted by the Association and published in September 1947 in the Canadian Journal of Public Health. It divided the professional group into six categories and these are used in the following recommendations. The technical group have been sub-divided into three divisions. Medical personnel who have special training in laboratory work are not included in these groups as they are included in the recommendations regarding physicians.

The Laboratory Section of the Association formed a special Committee on Salaries to conduct an independent survey and their report has been of great assistance in the revision of this report.

The situation in the laboratories across Canada in regard to recruiting and maintenance of staff has been very serious for several years. The type of work has become more highly specialized and the days of a laboratory staffed by a director and several technicians are past. This increasing demand for more extensive laboratory procedures obviously calls for more highly trained personnel and the assumption on their part of more responsibility. This type of person is not available at the salary levels presently offered in Canada.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

TECHNICAL STAFF

Group I

Basic MINIMUM Salary $1,400 plus an annual increment of at least $100 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes laboratory technicians with no special qualifications or experience engaged in technical work under the supervision of qualified personnel.

Qualifications:

An educational background equivalent to high school graduation and, in addition, one year's experience in a public health or equivalent laboratory.

Group II

Basic MINIMUM Salary $1,800 plus an annual increment of at least $100 to a maximum salary comparable to that obtainable in positions of similar responsibility in private enterprise in the same region.

Duties:

This group includes laboratory technicians engaged in technical work in a public health laboratory whose duties require the assumption of some responsibility in the preparation of media or specimens, the examination of specimens, or similar laboratory procedures.

Qualifications:

In addition to the requirements of Group I, three years' experience in public health or equivalent laboratory.

Group IIIA

Basic MINIMUM Salary $2,400 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in positions of similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as junior laboratory assistants and requires the assumption of part of the responsibility for the operation of a section of the laboratory.

Qualifications:

Preferably a specialist certificate from the Canadian Institute of Laboratory Technicians or its equivalent and, in addition, five years' supervised training in a public health or equivalent laboratory.

Group IIIB

Basic MINIMUM Salary $2,800 plus increments as above.

Duties:

This group of senior laboratory assistants will have the same basic qualifications as Group III A, but because of exceptional merit they will be in a position of senior responsibility.

PROFESSIONAL STAFF

These groups are designed for the type of laboratory described in the Report on Educational Qualifications of Public Health Laboratory Personnel, published in the Canadian Journal of Public Health, September 1947.

Group I

Basic MINIMUM Salary $2,400 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as junior assistant bacteriologist, chemist, or serologist in a public health laboratory.

Qualifications:

Graduation from an approved university, preferably having majored in bacteriology or chemistry.

Group II

Basic MINIMUM Salary $3,000 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as senior assistant bacteriologist, chemist or serologist in a public health laboratory.

Qualifications:

In addition to the requirements of Group I, a year's postgraduate training in their specialty at an approved university or equivalent supervised training in a public health laboratory plus a period of two years' service in a public health laboratory.

Group III

Basic MINIMUM Salary $4,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as associate bacteriologist, chemist or serologist in a public health laboratory.

Qualifications:

The educational background and training equivalent to a master's degree and, in addition, at least three years' varied experience in a large public health laboratory.

Group IV

Basic MINIMUM Salary $5,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as principal bacteriologist, chemist or serologist in a public health laboratory.

Qualifications:

The educational background and training equivalent to a doctor's degree in bacteriology or chemistry and, in addition, five years' experience in public health laboratory procedures and the administrative or research experience required for the position.

Group V

Basic MINIMUM Salary $5,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant director of a public health laboratory.

Qualifications:

The educational background and training equivalent to a doctor's degree in bacteriology or chemistry and, in addition, five years' experience in public health laboratory procedures, of which two years should have been in an administrative capacity.

Group VI

This group includes directors of public health laboratories, and as such positions are held by personnel of widely varying background, the recommended salary and necessary qualifications are not included in this report. Each agency may define its own specifications for this position by comparing the qualifications and training of the incumbent with positions of equal responsibility in other branches of public health.

F. GRADUATES IN VETERINARY MEDICINE

There were 338 positions reported for this group as against 219 in 1946. The distribution of salaries is shown in Appendix F, Table I. The veterinarians employed by the Federal Department of Agriculture as meat inspectors have increased from 160 in 1946 to 301 in 1948.

There has been a marked improvement in salaries both at the minimum and at the maximum levels. In 1946, 80 per cent of the positions were limited to a maximum of $3,000 or less, and in 1948 all except seven of the positions could expect a maximum of over $3,000.

While this trend is encouraging, these levels must not be accepted as adequate because the private practice of veterinary medicine is still much more attractive from a monetary standpoint. If public health, in addition, is to require postgraduate training, then salary levels must be brought closer to those obtainable in private practice in order to compete successfully for the available graduates.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

Group I

Basic MINIMUM Salary $3,000 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as dairy-herd inspectors, meat inspectors, and other positions requiring graduates in veterinary medicine to work under supervision.

Qualifications:

Graduation from an approved university school of veterinary medicine.

Group II

Basic MINIMUM Salary $4,000 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant chief of a division of food control of large health departments or chief inspector of health units or other positions where the duties require a qualified veterinarian to assume some of the responsibility of the operation of a food control or sanitation division in a health agency.

Qualifications:

In addition to the requirements of Group I, one year's postgraduate study at an approved university and one year's supervised experience in a health agency; or in lieu of these qualifications, four years' supervised experience in a health agency.

Group III

Basic MINIMUM Salary $5,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as chief inspector of a division of food control or chief sanitary inspector in a large health department or other positions requiring qualified veterinarians to assume responsibility for the supervision of a staff of inspectors.

Qualifications:

In addition to the qualifications of Group II, five years' experience in veterinary medicine in public health. In exceptional cases, personnel who have had ten years' experience in veterinary public health may be included in this group.

Group IV

Basic MINIMUM Salary $6,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as director of a division of food control of metropolitan cities or consultant veterinarian at larger provincial level.

Qualifications:

In addition to the Diploma in Veterinary Public Health a further year in postgraduate study at an approved university plus six years' experience in a public health agency, two of which should have been in an administrative capacity.

G. PUBLIC HEALTH STATISTICAL PERSONNEL

In 1948 there were 19 positions reported in this group as against 15 in 1946. As the survey does not include the general clerical employees of health agencies and as it was somewhat difficult to decide at what point in training and experience a non-professional person becomes a public health statistical clerk, the positions

selected may not represent the entire group of public health statistical personnel from the agencies surveyed.

The wide variation in salary ranges indicates that there is a wide range of responsibility and training requirements for the incumbents of these positions.

The distribution of salaries is shown in Appendix G, Table I. The improvement in salary levels in this group as reported in 1948 in comparison with 1946 is practically imperceptible.

The acute shortage of public health statisticians mentioned in the 1946 report still exists and for the reasons advanced then the field does not offer an economically sound future.

There are still no adequate training facilities in Canada for the clerical statistical personnel, and courses at university level for the senior or professional groups are practically non-existent.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus.

For the purpose of this report, public health statistical personnel have been divided into four groups, including both professional and clerical groups. Medical personnel with training in public health statistics are not included in these classifications as they are included in the recommendations regarding physicians.

Group I

Basic MINIMUM Salary $2,000 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as statistical clerks whose duties require knowledge of methods of collection and tabulation of public health statistics and the ability to supervise, under senior direction, a group of clerical staff engaged in the compilation of statistical data.

Qualifications:

Four years' supervised experience in statistical work in a public health or similar agency.

Group II

Basic MINIMUM Salary $2,500 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant statistician in large health departments or chief statistical clerk in smaller cities or health units. Duties should include responsibility for the collection and presentation of the public health statistical data or a section of it under the guidance of a consultant statistician.

Qualifications:

Graduation from a recognized university where studies include the elements of statistical methods, and, in addition, one year's supervised experience in public health statistics in a public health agency. Exceptional personnel who by experience have acquired an educational training equivalent to the above may be included in this group. A minimum of six years' supervised experience should be required as an equivalent.

Group III

Basic MINIMUM Salary $3,500 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant director of statistical divisions in public health agencies and regional consultant statistician for a group of health units.

Qualifications:

In addition to the requirements of Group II, one year's postgraduate training in public health statistics or a course of study leading to a certificate in public health at a recognized university. As in Group II, exceptionally well trained personnel who have not had formal academic training may be included in this group if they have had nine years' supervised training in public health statistics.

Group IV

Basic MIMIMUM Salary $5,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as director of public health statistical services in large health agencies. These personnel should be capable of interpreting and analyzing statistical data and directing statistical research programs.

Qualifications:

Graduation from a recognized university plus two years' postgraduate study, one year of which should have been in statistical methods and theory, preferably leading to a master's degree, and the other in public health. In addition, five years' experience in a statistical division of a public health agency, of which one year should have been in an administrative capacity.

H. NUTRITIONISTS IN PUBLIC HEALTH AGENCIES

There were 28 positions reported in this group in 1948 as against 29 in 1946. The salary distribution is shown in Appendix H, Table I.

In comparison with the 1946 picture, there has been a modest upward trend in the initial salary levels, but here again, the maximum offered most nutritionists is still much too limited to act as an inducement to people contemplating public health work or to deter those already employed from leaving for positions offering a better future.

These people are required to be university graduates, preferably with a postgraduate period of study in public health nutrition, and yet the majority are limited to a maximum of $2,600 or less.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

For the purpose of this report, nutritionists have been divided into two groups. Medical personnel with training in nutrition are not included in these classifications as they have been included amongst the recommendations for public health physicians.

Group I

Basic MINIMUM Salary $2,500 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant nutritionists in provincial or city health departments or other positions requiring a qualified nutritionist to be employed under supervision.

Qualifications:

Graduation from a recognized university in a course majoring in home economics, food chemistry, nutrition or related subjects and, in addition, a minimum of one year's postgraduate study in the field of public health.

Group II

Basic MINIMUM Salary $3,500 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as assistant to the director of a division of nutrition at a provincial or large city level, regional consultant nutritionist for several health units, or other senior nutritionist position.

Qualifications:

In addition to the qualifications of Group I, three years' experience in public health nutrition.

I. SANITARY INSPECTORS

There were 492 positions reported in 1948 as against 434 in 1946. The distribution of these salaries is shown in Appendix I, Table I. There has been a fairly marked upward trend in salary levels of these personnel. Sixty per cent of the positions for sanitary inspectors now offer over $2,000 as starting salary, whereas in 1946 over 90 per cent of the starting salaries were below $2,000. The maximum levels have increased correspondingly.

RECOMMENDATIONS

These recommendations are proposed as a basis or guide to authorities in the preparation of salary classification and schedules. The recommendations do not include cost-of-living bonus, car allowance, etc.

Group IA

Basic MINIMUM Salary $2,000 plus an annual increment of at least $120 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes positions that require a qualified sanitary inspector to carry out inspectional duties under the supervision of a senior member of the public health agency.

Qualifications:

The Certificate in Sanitary Inspection (Canada) or its equivalent.

Group IB

Basic MINIMUM Salary $2,200 with increments as above.

This group are university graduates who have obtained the Certificate in Sanitary Inspection (Canada) or its equivalent. Candidates from this group may be chosen for postgraduate courses in public health.

Group II

Basic MINIMUM Salary $2,600 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes such positions as senior inspector in smaller health agencies.

Qualifications:

(a) The Certificate in Sanitary Inspection (Canada) or its equivalent, plus five years' experience in environmental sanitation in a public health agency; *or*

(b) One year's postgraduate training in public health plus one year's experience in environmental sanitation in a public health agency.

Group III

Basic MINIMUM Salary $3,150 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

Duties:

This group includes senior inspectors of large health agencies and regional or provincial supervisors of several health units.

Qualifications:

(a) The Certificate in Sanitary Inspection (Canada) or its equivalent, plus ten years' experience in environmental sanitation in a public health agency, at least two of which should have been in a supervisory or administrative capacity; *or*

(b) One year's postgraduate training in public health, plus five years' experience in environmental sanitation in a public health agency, at least two of which should have been in a supervisory or administrative capacity.

APPENDIX A

TABLE I

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH PHYSICIANS BY EMPLOYMENT

Amount	*Federal and Provincial*		*Health Units*		*Cities*		*Total*	
	Minimum	*Maximum*	*Minimum*	*Maximum*	*Minimum*	*Maximum*	*Minimum*	*Maximum*
$2501 - 3000	7	7	—	—	—	—	7	7
3001 - 3500	11	—	3	—	22	—	36	—
3501 - 4000	38	40	75	69	12	1	125	110
4001 - 4500	73	15	11	11	21	35	105	61
4501 - 5000	102	43	36	10	27	9	165	62
5001 - 5500	56	125	12	36	14	35	82	196
5501 - 6000	18	64	—	11	12	15	30	90
6001 - 6500	25	19	3	1	4	3	32	23
6501 - 7000	3	16	—	2	2	9	5	27
7001 - 7500	1	4	—	—	3	9	4	13
7501 - 8000	3	3	—	—	—	—	3	3
8001 - 8500	—	—	—	—	1	—	1	—
8501 - 9000	—	—	—	—	—	—	—	—
9001 - 9500	—	—	—	—	—	1	—	1
9501 - 10,000	1	2	—	—	1	2	2	4
Total	338	338	140	140	119	119	597	597

APPENDIX A

TABLE II

MAXIMUM AND MINIMUM SALARIES, BY POSITION
PUBLIC HEALTH PHYSICIANS

Amount	*Deputy Ministers or Chief Provincial Health Officers*		*Assistant Deputy Ministers*		*Directors of Divisions, Provinces and Cities*		*Medical Officers of Health, Cities*		*Medical Officers of Health, Units*		*Positions requiring special qualifications*		*Positions not requiring such qualifications*	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*
$2501 - 3000	—	—	—	—	—	—	—	—	—	—	2	2	5	5
3001 - 3500	—	—	—	—	—	—	—	—	3	—	2	—	31	—
3501 - 4000	—	—	—	—	17	17	1	1	72	67	25	12	10	13
4001 - 4500	—	—	—	—	4	—	3	—	9	9	61	20	28	32
4501 - 5000	1	1	—	—	36	18	2	1	34	7	75	19	17	16
5001 - 5500	1	—	2	—	20	22	6	3	9	33	28	115	16	23
5501 - 6000	1	—	1	2	7	20	2	5	—	11	2	26	17	26
6001 - 6500	3	2	1	2	15	11	2	1	3	1	3	1	5	5
6501 - 7000	—	3	—	—	1	10	—	1	—	2	4	2	—	9
7001 - 7500	1	—	—	—	—	2	3	6	—	—	—	5	—	—
7501 - 8000	2	2	—	—	1	1	—	—	—	—	—	—	—	—
8001 - 8500	—	—	—	—	—	—	1	—	—	—	—	—	—	—
8501 - 9000	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9001 - 9500	—	—	—	—	—	—	—	1	—	—	—	—	—	—
9501 - 10,000	1	2	—	—	—	—	1	2	—	—	—	—	—	—
Total	10	10	4	4	101	101	21	21	130	130	202	202	129	129

APPENDIX B

TABLE I

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH NURSING PERSONNEL BY TYPE OF POSITION

A—Staff nurse without public health qualifications.
B—Staff nurse requiring public health qualifications.
C—Director, supervisor and other senior positions requiring public health qualifications.

Amount	*A*		*B*		*C*		*Total*	
	Minimum	*Maximum*	*Minimum*	*Maximum*	*Minimum*	*Maximum*	*Minimum*	*Maximum*
1101 - 1200	2	1	—	—	—	—	2	1
1201 - 1300	—	—	—	—	—	—	—	—
1301 - 1400	240	1	42	—	—	—	282	1
1401 - 1500	4	3	18	—	—	—	22	3
1501 - 1600	—	1	26	1	—	—	26	2
1601 - 1700	20	240	96	13	1	—	117	253
1701 - 1800	104	—	132	82	—	—	236	82
1801 - 1900	10	3	278	35	19	—	307	38
1901 - 2000	1	20	124	69	16	3	141	92
2001 - 2100	—	7	169	97	14	6	183	110
2101 - 2200	—	4	—	240	24	3	24	247
2201 - 2300	—	1	19	69	17	4	36	74
2301 - 2400	—	100	—	95	11	42	11	237
2401 - 2500	—	—	—	33	34	12	34	45
2501 - 2600	—	—	6	170	5	10	11	180
2601 - 2700	—	—	—	—	15	28	15	28
2701 - 2800	—	—	—	—	3	15	3	15
2801 - 2900	—	—	—	6	5	12	5	18
2901 - 3000	—	—	—	—	1	6	1	6
3001 - 3100	—	—	—	—	3	3	3	3
3101 - 3200	—	—	—	—	—	19	—	19
3201 - 3300	—	—	—	—	—	1	—	1
3301 - 3400	—	—	—	—	2	—	2	—
3401 - 3500	—	—	—	—	—	1	—	1
3501 - 4000	—	—	—	—	4	7	4	7
4001 - 5000	—	—	—	—	—	2	—	2
5001 - 6000	—	—	—	—	—	—	—	—
Total	381	381	910	910	174	174	1465	1465

APPENDIX B

TABLE II

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH NURSING PERSONNEL, BY AGENCY

Amount	*Federal and Provincial*		*Health Units*		*Cities*		*Total*	
	Minimum	*Maximum*	*Minimum*	*Maximum*	*Minimum*	*Maximum*	*Minimum*	*Maximum*
$1101 - 1200	—	—	1	—	1	1	2	1
1201 - 1300	—	—	—	—	—	—	—	—
1301 - 1400	—	—	282	1	—	—	282	1
1401 - 1500	—	—	7	—	15	3	22	3
1501 - 1600	—	—	—	—	26	2	26	2
1601 - 1700	3	—	54	253	60	—	117	253
1701 - 1800	—	—	107	62	129	20	236	82
1801 - 1900	8	—	183	23	116	15	307	38
1901 - 2000	3	—	65	40	73	52	141	92
2001 - 2100	8	10	10	42	165	58	183	110
2101 - 2200	14	—	4	201	6	46	24	247
2201 - 2300	20	1	2	40	14	33	36	74
2301 - 2400	—	20	9	33	2	184	11	237
2401 - 2500	3	1	10	25	21	19	34	45
2501 - 2600	8	8	—	1	3	171	11	180
2601 - 2700	—	16	—	8	15	4	15	28
2701 - 2800	1	1	—	1	2	13	3	15
2801 - 2900	1	7	—	—	4	11	5	18
2901 - 3000	—	2	—	3	1	1	1	6
3001 - 3100	2	—	—	—	1	3	3	3
3101 - 3200	—	2	—	1	—	16	—	19
3201 - 3300	—	1	—	—	—	—	—	1
3301 - 3400	1	—	—	—	1	—	2	—
3401 - 3500	—	—	—	—	—	1	—	1
3501 - 4000	3	5	—	—	1	2	4	7
4001 - 5000	—	1	—	—	—	1	—	2
5001 - 6000	—	—	—	—	—	—	—	—
Total	75	75	734	734	656	656	1465	1465

APPENDIX C

TABLE I

MAXIMUM AND MINIMUM SALARIES, GRADUATE ENGINEERS

Amount	*Engineers*		*Assistant Engineers*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$2201 - 2400	—	—	1	—
2401 - 2600	—	—	7	—
2601 - 2800	—	—	9	1
2801 - 3000	1	—	—	7
3001 - 3500	4	1	1	9
3501 - 4000	6	5	7	—
4001 - 4500	3	5	—	7
4501 - 5000	3	4	—	1
5001 - 6000	1	3	—	—
Total	18	18	25	25

APPENDIX D

TABLE I

MAXIMUM AND MINIMUM SALARIES, DENTISTS EMPLOYED FULL-TIME BY PUBLIC HEALTH AGENCIES

Amount	*Directors of Divisions or Service*		*Assistant Dentists*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$3001 - 3200	—	—	3	1
3201 - 3400	1	—	9	—
3401 - 3600	—	—	—	—
3601 - 3800	1	—	—	—
3801 - 4000	—	1	13	2
4001 - 4500	3	3	2	17
4501 - 5000	3	1	5	7
5001 - 5500	3	3	—	5
5501 - 6000	—	3	—	—
Total	11	11	32	32

APPENDIX E

TABLE I

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH LABORATORY PERSONNEL—PROFESSIONAL STAFF

Amount	*Directors and Senior Bacteriologists, Serologists and Chemists*		*Assistant Bacteriologists, Serologists and Chemists*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$1401 - 1600	—	—	3	—
1601 - 1800	—	—	11	—
1801 - 2000	—	—	5	3
2001 - 2200	1	—	6	11
2201 - 2400	—	—	3	9
2401 - 2600	7	—	15	—
2601 - 2800	1	1	28	17
2801 - 3000	1	2	1	4
3001 - 3500	4	7	29	30
3501 - 4000	6	6	19	29
4001 - 4500	5	4	8	17
4501 - 5000	2	4	—	8
5001 - 6000	1	4	—	—
6001 - 7000	1	1	—	—
Total	29	29	128	128

TABLE II

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH LABORATORY PERSONNEL—TECHNICAL STAFF

Amount	*Minimum*	*Maximum*	*Amount*	*Minimum*	*Maximum*
$1000 and under	80	—	$2001 - 2200	10	47
1001 - 1200	19	80	2201 - 2400	12	21
1201 - 1400	62	5	2401 - 2600	1	17
1401 - 1600	58	50	2601 - 2800	4	6
1601 - 1800	22	39	2800 and over	—	4
1801 - 2000	31	30	Total	299	299

APPENDIX F

TABLE I

MAXIMUM AND MINIMUM SALARIES, VETERINARIANS*

Amount	*Minimum*	*Maximum*	*Amount*	*Minimum*	*Maximum*
$2201 - 2400	2	—	$3501 - 4000	74	139
2401 - 2600	6	—	4001 - 4500	1	20
2601 - 2800	18	5	4501 - 5000	—	—
2801 - 3000	7	2	5001 - 6000	—	1
3001 - 3500	230	171	Total	338	338

*This includes 301 veterinarians employed as meat inspectors by the Federal Department of Agriculture as at September 30, 1948.

APPENDIX G

TABLE I

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH STATISTICAL PERSONNEL

Amount	*Minimum*	*Maximum*	*Amount*	*Minimum*	*Maximum*
$1801 - 2000	2	—	$3001 - 3500	4	5
2001 - 2200	4	—	3501 - 4000	1	4
2201 - 2400	—	2	4001 - 4500	—	1
2401 - 2600	1	—	4501 - 5000	1	—
2601 - 2800	5	4	5001 - 6000	—	1
2801 - 3000	1	2	Total	19	19

APPENDIX H

TABLE I

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH NUTRITIONISTS

Amount	*Minimum*	*Maximum*	*Amount*	*Minimum*	*Maximum*
$1000 - 1200	—	—	$2401 - 2600	4	12
1201 - 1400	—	—	2601 - 2800	1	—
1401 - 1600	—	—	2801 - 3000	—	4
1601 - 1800	3	1	3001 - 3500	1	1
1801 - 2000	4	2	3501 - 4000	—	—
2001 - 2200	6	2	4001 - 4500	—	—
2201 - 2400	9	6	Total	28	28

APPENDIX I

TABLE I

MAXIMUM AND MINIMUM SALARIES, PUBLIC HEALTH SANITARY INSPECTORS

Amount	*Chief Sanitary Inspectors*		*Sanitary Inspectors*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$1200 - 1400	—	—	1	1
1401 - 1600	—	—	5	—
1601 - 1800	—	—	75	6
1801 - 2000	2	—	87	57
2001 - 2200	2	—	153	50
2201 - 2400	6	2	113	51
2401 - 2600	9	4	11	115
2601 - 2800	8	6	10	29
2801 - 3000	2	6	—	145
3001 - 3500	7	12	1	2
3501 - 4000	—	6	—	—
Total	36	36	456	456

Letter from Great Britain

The General Practitioner in Great Britain in 1949

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SINCE my letter in April of last year, when I spoke of the battle then waging between the British Medical Association and the Minister of Health, much has happened. The general practitioners lost the battle in the sense that it was fought over the body of private practice. Private practice has almost disappeared; over 40 million persons have placed their names on the lists of a general practitioner and over 20,000 out of 21,000 general practitioners have entered the scheme (8,988 dentists out of 10,000). Thus, nearly everyone has signed for the state service; many practices contain the maximum of 4,000 patients per practitioner (6,400 where one principal has an assistant). There is no longer any money barrier in England between patient and doctor and no longer any right to buy or sell a practice, excepting the few rare practices which have remained wholly private.

Doctors regard as a qualified victory the defeat of the proposal to have a universal basic salary of £300 (which has been replaced by a limited application of the principle on request); they also consider that they won that part of the fight which concerned 'negative direction' now limited to areas specifically declared to be 'closed' by the *medical practices committee;* this committee, sitting in London, is composed wholly of doctors nominated by the B.M.A. and is not likely to be rigorous in declaring areas to be over-doctored. Thus, in the unrestricted areas (now almost the whole country) there is still an absolute and unlimited right to practise and also to choose partners and assistants. Freedom of choice, both for patient and doctor, subject always to the statutory limit of 4,000 patients, and payment by capitation, leaves competition to operate for good or ill. It is possible to be a state doctor and to have private patients but the right of state doctoring is all or nothing, so that private patients cannot have free medicines or dressings; many who would like to pay their doctor have finally been persuaded to enter the service to gain the right to free accessories: the private patient cannot be accommodated in a public 'health centre' (when provided) but there is no compulsion on a doctor to make use of any such health centre, for which he will have to pay rent. To those who regard these features as the attributes of freedom the 'defeat' does not seem very hard to bear; particularly in contrast with the whole-time state salaried service under the local authorities which doctors in England had come to dread.

It has been a strange contest, unreal in many ways. Some think that obscurantism has won the day and the enlightened progress possible under the local authorities has been barred. Certain it is that the general practitioners must, to some extent, remain aloof from the full swim of English medicine, unrelated as they now are to either the state hospital scheme or the local government service for preventive medicine. The machinery to run the general practitioner service is one of the strangest features of the new arrangements; indeed, it would be an exaggeration to say that any real machine exists at all other than one to pay the doctor. The executive council (for constitution see letter of April, 1947) is the old National Health Insurance Act committee reconstituted under another name but with the same administrative organization. Its greatest weakness lies in the fact that it has no medical executive officer or adviser; it resembles a tractor ploughing a field without a driver. There seems little chance of achieving any progressive plan for general practice in the absence of such leadership. It is, of course, precisely this lack of organization which the general practitioner has been anxious to perpetuate and it is in this that his interpretation of liberty lies. The time may come when he may see more clearly his position in the community, particularly his importance to social medicine; when this time arrives both service by salary and operation within the orbit of the locally elected municipality may be seen in a different light, giving greater freedom than ever before.

The public has taken full advantage of what has been described euphemistically as a 'free' service. On the whole, people have been considerate; yet the doctor is required to work much harder and 'in circumstances which he deplores as unsuitable for the pratcice of good medicine' (B.M.J., 1948, 2, 864), and certainly of good social medicine. Waiting rooms are thronged and visiting lists long; to the forms and certificates the doctor sees no end. Everything seems now 'just a matter of form'; under para. 7 (7), part I, first schedule to N.H.S. (General Practitioner and Pharmaceutical Services) Regulations, 1948, 15 series of certificates are listed, many series containing several certificates. This schedule, which does not claim to be exhaustive, is now under review by an interdepartmental committee, and no wonder; apart from the usual statutory obligations to certify birth, death, lunacy, exemption from jury service, sickness certificates for insurance benefit, and the like (which presumably are inevitable), the harassed doctor is now besieged, in his surgery and on his round, with requests to certify the need for spectacles and hearing aids, etc., which only gives the patient a right to further examination; to fill up forms, inter alia, for additional petrol 'on medical grounds', for supplementary foods for expectant mothers, and for special foods in a wide range of illnesses; for vacuum flasks, corsets, coal, meat mincing machines, for mattresses, glucose, electricity in old houses, maternity benefit, and superannuation schemes. The doctor finds increasing difficulty in giving any time to clinical examination, diagnosis and treatment.

There has been a rush on spectacles, dentistry and medicines, as is shown by a surprising high cost compared with the estimates placed before Parliament; the supplementary ophthalmic service is to cost just under £13 millions

compared with an estimate of £2 millions, and the dental service just under £18 millions compared with an estimate of £7 millions. These figures represent substantial benefits to health; those many thousands of presbyotic middle-aged folk who used to get their spectacles in Woolworth's against a reading card, may not have come to great harm, but in an enlightened age we cannot accept such hit and miss methods. In the past six months 2½ millions had their eyes tested and 3 millions of spectacles were supplied or on order. This is to be welcomed, even at a cost of approximately £3 to the state in place of the Woolworth's figure of 1/6 to the private individual. Likewise, the eradication of dental caries and the fitting of good dentures in the adult population must be advancing by leaps and bounds if the stories are true of harassed and overworked dentists sleeping exhausted in their own chairs; in the first six months over 2 million persons had state dental care. But it has not been all gain, for unfortunately the national health service has dealt an unintentional yet grievous blow at the school dental service, which has continued in operation under the education authorities outside the state service. The importance of the preventive outlook is more clearly seen in dentistry even than in the rest of medicine. What matters to a nation, speaking broadly, is that its children should reach adult life with a complete set of healthy teeth and a knowledge of how to maintain them; in comparison with this need it is of less importance what care the adult gets. The national health service has reversed this process; free treatment with a shortage of dentists, coupled with attractive rates of pay for unlimited piece work, has forced us to witness a decline in school dentistry of such alarming proportions that if nothing is done to counteract it the work of thirty years will be cast away; thirty years of steady education from the days when ninety per cent of parents refused treatment for their children to the time when ninety per cent consent. Are we now to accept that our children's teeth shall be neglected, to swell the numbers of adults who year by year seek treatment for conditions that need never have occurred?

In the pharmaceutical service about 86 million prescriptions have been issued in the first six months, considerably more than the 60 million for the whole year under the Lloyd George 1911 National Health Insurance Scheme, which the new act has replaced. This relates to the whole population and no longer to the insured workers only; nevertheless, it is evident that free medicines are pouring in torrents down English throats and we shall soon want the dread voice of Hercules to shrink *this* stream, as he did in olden times that of the Sicilian muse. The 'health in a bottle of medicine', which our hoardings proclaim so persuasively and so persistently, is come home to roost.

Few things in the operation of the Act have given rise to so much heartburn as section 33 (not inappropriately) including the statutory approval to practise obstetrics. The decision as to who should be so designated has been placed in the hand of a 'local obstetric committee' established by the executive council and generally consisting of the medical officer of health of the local health authority, a specialist obstetrician selected by the local medical committee in consultation with the regional hospital board, and two general practitioners nominated by the local medical committee. Such committees, estab-

lished for each of the 138 executive councils, have been sitting in some discomfort, since the 5th July last, wondering how to say who should practise as 'general practitioner obstetricians' and who should not. The right carries with it seven guineas of state money for each patient booked and the duty to give two ante-natal and one post-natal examinations; attendance at delivery is optional. A large number of committees have found the task impossible and have accepted every doctor applying, much to the annoyance of the Ministry of Health. The value of the proposal seems to have been stultified by a last minute decision of the Minister to give five guineas for the same service to any doctors not approved. In the West Riding of Yorkshire the proposal is to limit acceptances for new entrants in a year's time to those with postgraduate hospital experience or a year's guidance under an experienced practitioner. There has been a rush by doctors generally to take on the new responsibility, no doubt quite unrelated to the additional payment, and some falling off in attendance at the local authority ante-natal clinics. This will adjust itself in time and doctors will realize that there is need for continued supervision and teaching in the clinic, even when their services have also been booked.

Arrangements have been made for newly qualified practitioners to be trained as assistants in general practice (M/H. 1949, E.C.L. 94 and 152); 500 to 1,000 yearly are expected to avail themselves of the offer. Executive councils have been asked through their medical practices committee (a statutory sub-committee consisting wholly of doctors) to select practitioners with experience to undertake this work at a fee of £150 for the year's training, in addition to the salary of the trainee (approximately £600).

The greatest cause of dissatisfaction for the general practitioner is pay. He is, of course, paid according to his list; a capitation sum (approximately 18s. 0d. per patient per annum) in contrast to the piece work rates of the dentist. The application of two different methods of payment is generally considered to be wrong and, apart from the ruination of the school dental service previously mentioned, it gives unfortunate contrasts between medicine and dentistry. Dentists are earning large incomes; the Minister has, in fact, been forced to fix a 'ceiling' of £4,800 beyond which payments will be halved; sixteen dentists in Leeds were recently reported to be receiving fees to this high figure. In contrast, medical practitioners, as was said in a recent Parliamentary debate, 'are extremely unhappy and very perturbed about their present position'. In large industrial areas they have gained but in residential and rural areas and seaside resorts they have lost. One of the hardy warriors of the 'Representative Body' of the B.M.A. (established to negotiate with the Minister) has said (Cockshut, R. W., B.M.J., 1949, 1, supplement 46), 'Large numbers of doctors are ruined or at least financially embarrassed.' On the other hand, the Parliamentary Secretary of the Ministry of Health has said that the distribution during the year of about £40 millions of money (including superannuation contributions) would give the practitioner the equivalent of the findings of the Spens report. This report said:

> "A scheme should be devised which will ensure that between 40 and 50 years of age approximately 50% of all general practitioners receive net

> incomes of £1,300 or over, and which will also secure, so far as practicable, that between 40 and 50 years of age approximately three-quarters receive net incomes over £1,000, that approximately one-quarter receive net incomes over £1,600, that slightly less than 10% receive net incomes over £2,000 and that, in a small proportion of cases, it is possible to obtain net incomes of at least £2,500. By net income we mean gross income less such professional expenses as are allowed by the Inland Revenue for income tax purposes. Here also, as in the body of the report, we are expressing our recommendations in terms of the 1939 value of money."

£2,000 becomes £3,000 with practice expenses allowed and £3,600 with the 20 per cent betterment factor, to allow for changes in money values since 1939, laid down by the Government; even so, it compares unfavourably with the dentists and clearly payments to practitioners must soon be adjusted, probably rising to about 25s 0d. a head on a sliding scale with a higher figure for the first 1,000 patients. It is possible that the maximum of 4,000 patients may be coincidentally reduced as being incompatible with good medicine.

The general practitioner should represent the practice of medicine at its fullest and finest. The emphasis now placed upon hospitals by the establishment of 14 regional hospital boards, directly supported by the state purse, with management committees each staffed with officers of many different kinds, and also the publicity of the Spens report on specialist salaries with its dazzling prospect of large incomes; these, and other happenings, have tended to obscure the fact that medicine can only survive and flourish if general practice survives and flourishes. It is quite useless to have hospitals without general practice and the replacement of general practice by a number of different specialists would end in the creation of a wilderness in which the public would wander seeking health but never finding it. Hospitals are necessary evils and not essential blessings; both hospitals and specialists must be regarded as adjuncts to a medical service and not the medical service itself. The most important one element in any medical service is the general practitioner. He alone sees the individual as a member of a family in the community setting and over the years.

Everything must be done to make possible the practice of medicine by the general practitioner in the fullest sense. If this were not true for the welfare of medicine, the patient and the family, it would still be true for the welfare of the state purse. Hospital treatment is now so costly that some means must be found to check its growth. Everyone in need of treatment which can only be provided in an institution must have it; but we cannot permit the congestion of our hospital wards with those who would be better nursed at home. Give the general practitioner the necessary assistance and the necessary weapons and he can accomplish much. Why is there yet no pathological service for the general practitioner? Where is the secretarial assistance, the home nursing, the health visiting, the home help, the health centre? Is all the nation's money and most of its time and energy to be spent on making hospitals and specialists before we have made that essential part of the service without which it is useless to have hospitals and specialists? What is being done to help the general practitioner in his noble work, even to compensate for the addition of duties which he cannot properly now take on without detriment to its quality?

The regional hospital boards should constantly have the welfare of the general practitioner in mind, for in measure as this is neglected their task will be made both more difficult and less valuable. Pathology is one of the modern weapons without which the practice of medicine is handicapped; is it too much to ask that the regional hospital boards shall make the provision of a good pathological service for the home a first call upon them? The local health authority must show an equal solicitude for the welfare of the practitioner and should seek to build up the services under Part III of the Act with the object of putting general practice back on its feet. This will not be easy; it will cost money which will come from the rate-payer and it is never easy to spend the rate-payer's money to ease the burden of the state. With determined action much is possible. The local authority services can all be made to help the general practitioner. Home nursing is in its infancy; much more nursing is possible in the home than at present. Developed under the direction of the general practitioner this might do much to ease his burden and make it a pleasure to be ill at home. The health visitor likewise must become the right hand of the practitioner, advising and teaching what he has no time to do. The home help makes home nursing and home teaching possible. This trio, the home nurse, the health visitor and the home help, can do much to make general practice possible under modern conditions and general practitioners can help by encouraging the development of adequate services.

Others see the greatest hope in better buildings for practitioners to work in; those almost mythical health centres about which so much has been said and so little done; that combination of doctor's surgery, specialist's consulting room, local authority's clinic, and health education hall, which is to be, like its name, a place of health rather than sickness and therefore in sharp contrast with the hospital. The provision of health centres is urgent, more so than many hospital extensions which are now contemplated. How necessary it is to achieve a proper balance of constructive effort and to secure that the health centres which are to be the key to the preventive services shall have their share of a straitened public purse. It is important to make the national drive one towards health rather than towards more provision for sickness. The hospital can never be more than a place to treat with loving care the failures of preventive medicine; the health centre can be much more. There are now signs that the Ministry of Health will give local authorities every encouragement in building them. Plans for the first London County Council centre at Woodberry Down, Stoke Newington, have now been approved at an estimated cost of £187,275 exclusive of site and equipment. Readers will recall that Section 21 of the National Health Service Act specified that a health centre should give facilities for medical, dental and pharmaceutical practitioners, for specialists, for local health authority clinics, and for health education. Accordingly, there will be consulting and waiting rooms for six doctors, a minor operation unit, an X-ray department, sterilising rooms, doctors' laboratory, sleeping accommodation for a night-duty doctor, a doctors' common room, rooms for specialists, and all the local health authority clinics for ante- and post-natal work, child welfare, and school treatment including child guidance, and a remedial exercise unit; there will be an

ophthalmic examination unit, with facilities for orthoptics. Such a centre is to embrace a population of 20,000, and eventually 162 such centres are to be built in London.

In the past there has been antagonism in England between general practitioners and local authorities, and the work of the local authority often seemed to the general practitioner to encroach upon his own work. I am convinced that this was never more than a little true but henceforth there need be no more misunderstanding and only the rivalry of two partners striving for a common end; the local authority and the general practitioner have been placed by the National Health Service Act in harness together. The school health service, the infant welfare and ante-natal clinic, the midwifery, home nursing, health visiting, home help services, and all else that the local health authority is responsible for, must now be seen in correct perspective as an aid to the general practitioner. The general practitioner of the future will be the family doctor perhaps more completely than ever before; all services of the local authority, whether in the clinic or the school or the home, must be regarded as accessories to his general care provided to meet some special need. Every woman can now book a doctor for her confinement and the ante-natal clinic assumes a new importance, as a place where continuous routine supervision and education can be conducted; were this not so the general practitioner must inevitably be overwhelmed with additional work, since the continuous teaching of pregnant women on how to live, how best to organise their lives during gestation and the puerperium, and regular supervision against mishaps in labour, is a lengthy task. And in the truest sense so should the hospital be regarded as an accessory to the general practitioner, a place at which those of his patients can be cared for who cannot be nursed at home. Particularly should it be one of the first concerns of the regional hospital boards to see that the work of the general practitioner is not allowed to be entirely dissociated from that of the hospitals; the present emphasis on specialism, which is abolishing the traditional staffing of hospitals by general practitioners of the area, must be carefully balanced by an equal concern to find for him a new relationship of equivalent status.

Histoplasmin Sensitivity in the Maritime Provinces and Newfoundland

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SINCE 1945 several reports have been published which suggest that infections produced by the yeast-like fungus *Histoplasma capsulatum* may be much more common than was previously suspected, particularly in a large portion of central United States. It has been shown (1, 2, 3, 4) that a relatively large proportion of the population in that region has a positive reaction to an intradermal test with histoplasmin, a filtrate of *Histoplasma capsulatum* grown on a synthetic medium. It has also been established that there is a correlation between such sensitivity and the radiological demonstration of healed calcified pulmonary lesions (5, 6) or unhealed nodular lesions (7, 8), both resembling tuberculosis but frequently occurring in persons with negative tuberculin reactions. Since the histoplasmin used for the skin tests is not completely specific (9), it cannot be stated with assurance that these pulmonary lesions are invariably the result of a previous or existing histoplasmosis. However, there is considerable evidence that this is probably the cause of most of the positive histoplasmin reactions (10), although some may have resulted from infection with an antigenically related fungus.

Histoplasmin sensitivity is relatively common in some of the States immediately south of the Canadian border, although not so common as it is a little farther south. Palmer (3) showed that 10.1 per cent of nurses from the New England States had positive reactions to histoplasmin and 31.9 to 68.3 per cent of those from the States bordering on the Great Lakes and St. Lawrence River, but only 1.4 per cent of those from States bordering on the Western Provinces were positive. Ohio students who had been life-time residents of three areas immediately south of Lake Erie showed 31.0, 33.7 and 16.8 per cent of positive histoplasmin reactors, and in the southwestern part of the same state 60 to 75 per cent reacted positively (5).

The possibility that histoplasmosis, or related fungous infections, may be relatively common presents a number of important problems both of clinical and public health interest. Many of the acute infections must have escaped the attention of physicians or have been misdiagnosed either because of their mildness or their non-distinctive characteristics even when severe. Fewer than 100 cases have been reported in the world literature since histoplasmosis was first described by Darling in 1906. Some of these occurred in Panama, the Philippine Islands, South America, Honduras, East Java, England, and South Africa, but more than two-thirds were reported in the United States. In most instances the disease terminated fatally, and many cases were diagnosed only on post-mortem examination. Death occurred within a few weeks

in infants, but the disease was more chronic in adults. It has been suggested by several writers who have seen a few cases that more undoubtedly occurred but were not correctly diagnosed. It is obvious that a much milder form of the disease must also be prevalent to explain the high incidence of histoplasmin sensitivity and of calcified pulmonary lesions. No cases of histoplasmosis have yet been reported in Canada.* A second important feature is the resemblance to tuberculosis. Healed lesions, especially those in the lungs, are frequently calcified and have been mistaken in the past for a previous tuberculous infection. Unhealed lesions also resemble tuberculosis, although sometimes they present a more nodular appearance on x-ray. It is, therefore, of interest to determine whether or not histoplasmin sensitivity is common in various parts of Canada in order to decide whether a more careful search should be made for missed cases of histoplasmosis and whether more consideration should be given to this condition in the radiological diagnosis of pulmonary lesions resembling tuberculosis.

The author investigated the histoplasmin sensitivity of 328 students at Dalhousie University in 1946 and 1947. Tests were done on most of the students of the first four years of Medicine in the autumn of 1946 and on the class entering Medicine in the autumn of 1947. A total of 222 medical students were tested, of whom 215 were males and 7 females. An additional 106 male students from other faculties received a histoplasmin test when they attended the Student Health Service in 1947 for a chest x-ray or other examination. These were volunteers from a larger group and do not represent a random sample of the student population. However, the distribution of their places of residence was very similar to that of the whole student body.

The histoplasmin** was diluted 1 in 1,000 with physiological saline and tested for sterility within one week before each series of tests. The test dose was 0.1 ml. injected intradermally on the forearm. The tests were read in 48 hours. A reaction of erythema with 5 mm. or more of œdema was considered positive. A smaller area of œdema, or erythema alone, was considered doubtful. Negative reactors showed no erythema or œdema.

Eighteen of the 328 students did not return at the proper time for the reading of the test. These have all been excluded from the analysis of the data, although they were seen or questioned within two days and were appar-

TABLE I

AGE DISTRIBUTION OF STUDENTS RECEIVING HISTOPLASMIN

Age in Years	Number
15 to 19	24
20 to 24	182
25 to 29	84
30 and over	20
Total	310

*Since this paper was submitted for publication, Guy et al (11) have reported on the incidence of histoplasmin sensitivity in the Province of Quebec, but no acute cases of histoplasmosis have yet been reported in Canada.

**Histoplasmin for these tests was very kindly provided by Dr. M. L. Furcolow of the U.S. Public Health Service, who has been one of the senior members of the group working on histoplasmin since 1945.

ently all negative reactors. It is doubted whether any positive reactor was missed, but data are reported on only the 310 persons whose tests were read in 48 hours.

The age distribution of the 310 students is shown in Table I.

Records were made on each person of places of residence of six months or longer since birth. Many had lived in different parts of the same province or of the three Maritime Provinces. A considerable number were veterans who had been in several other provinces of Canada during the war, or in Great Britain, the Mediterranean area, or the European continent. A few others, in addition to those who had been in the services, had lived for some time in other countries, chiefly the United States. Table II shows the province or

TABLE II

PLACES OF RESIDENCE OF STUDENTS RECEIVING HISTOPLASMIN

Province or Country of Longest Residence	Home Province or Country Only (1)	Place of Shorter-Term Residence				
		Other Maritime Province or Nfld.	Other Provinces of Canada	U.S.A.	Europe	Total
Prince Edward Island...	14	2	4	1	10 (1D)	31
Nova Scotia.....	61	17 (1D)	22	8 (1P)	51 (1D)	159
New Brunswick.....	31	2	9	1	12	55
Newfoundland.....	30	..	1	3	4	38
Quebec.....	2	1	1	..	3	7
Ontario.....	2	..	2 (2P)	..	2	6
Western Provinces.....	..	..	3	1	1	5
United States.....	..	..	1	..	..	1
Europe.....	1	1	..	..	..	2
British West Indies.....	3 (1P)	..	..	..	..	3
South Africa.....	..	..	..	..	1	1
Not recorded.....	2	..	..	..	..	2
Total.....	146	23	43	14	84	310

(1)—Except attendance at Dalhousie University.
P —Positive histoplasmin reaction.
D —Doubtful histoplasmin reaction.

other area in which each had resided for the longest period, together with a summary of data regarding other places of residence. Positive and doubtful reactors are shown in brackets. Those who had lived in Nova Scotia only after entering Dalhousie University are listed according to the province from which they came.

Two hundred and eighty-three (91 per cent) of the 310 students had lived most of their lives in the Maritime Provinces or Newfoundland; only 27 were residents of other areas. Of the 283, 157 (55.5 per cent) had not been residents of any area beyond the Atlantic seaboard, and 126 (44.5 per cent) had resided for more than 6 months in other parts of Canada or the United States or had been in various parts of the European or North African theatre of operations.

Of the 310 histoplasmin tests 303 were negative (97.7 per cent), 4 were positive (1.3 per cent) and 3 doubtful (1 per cent). Two of the doubtful reactions consisted of 5 mm. or more of eryt'iema but less than 5 mm. of œdema. Repeat tests on these two gave similar results. The third doubtful reactor

had less than 3 mm. of erythema and 1 mm. of œdema. The repeat test was considered probably negative. Table III shows the positive and doubtful reactors by place of residence.

TABLE III

Place of Residence	Total Tested	Histoplasmin Reaction	
		Positive	Doubtful
Maritime area (life-long)	157	0	1
Maritime and other areas	126	1	2
Other Provinces	18	2	0
Other Countries	9	1	0
Total	310	4	3

One man with a positive histoplasmin reaction had lived for eight years in Nova Scotia, seven in New York State, and four more in Nova Scotia, and was overseas for four years in England, North Africa, Italy and as a prisoner of war in Germany. X-ray of his lungs showed healed calcified lesions. However, the tuberculin test was also positive and there is nothing to indicate whether tuberculosis or a fungous infection might have been the cause of the calcification. Another histoplasmin reactor had been a life-time resident of several islands of the British West Indies. His x-ray was negative, his tuberculin test positive. Two others had been life-time residents of southern Ontario before entering Dalhousie University. Both had negative tuberculin reactions (second strength P.P.D.). One had a negative chest x-ray but the other had a large calcified nodule in the right hilum. He states that this was discovered on a routine x-ray in 1945 and he was given several tuberculin tests of increasing potency in an unsuccessful attempt to show a positive tuberculin reaction. Two doubtful reactors (one probably negative on the second test) had had military service overseas. The other had not left the Maritime Provinces except on short visits. These three had negative x-rays and negative tuberculin reactions.

The group tested with histoplasmin cannot be taken as representative of the total Maritime and Newfoundland population since it was comprised almost wholly of male university students. However, if infection with histoplasmosis, or antigenically related fungi capable of producing a histoplasmin reaction, were as common in this area as in central United States or even in New England, it seems reasonable to conclude that more of these Maritime residents would have shown a positive histoplasmin reaction. One positive reactor had lived for several years in New York State where the incidence of positive histoplasmin reactions in nurses was 31.9 per cent. Two others lived in Southern Ontario near the areas of high histoplasmin incidence in New York and Ohio. The fourth lived in the West Indies. No histoplasmosis has been reported in that area although it has been in Central America. It is tempting to assume that these four infections were acquired outside the Maritime area. However, this cannot be established. It can only be stated that the observed incidence of histoplasmin sensitivity in male university students of the Maritime Provinces and Newfoundland is low.

Summary and Conclusions

1. Histoplasmin tests were done on 310 Dalhousie University students, most of them males.

2. Positive reactions were observed in 4 men (1.3 per cent), all of whom had been part-time residents of areas outside the Maritime Provinces or Newfoundland.

3. No positive reactions were observed in 157 life-time residents of the Maritime Provinces or Newfoundland.

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The Fly Control Program in Saskatoon

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THE problem of suppressing or eradicating the fly population is a constantly recurring one, taxing our patience and resources to the utmost. Any experience gained should, we feel, be made available to other health officers with the hope that it may assist them in their efforts. Local situations vary and minor differences may and usually do exist, but broad principles apply equally well to most communities.

The habits of life histories of flies need not be discussed here other than to state that the housefly breeds in manure, human faeces and garbage, and the stable-fly in manure and decaying vegetation, and I need not dwell on the fact that flies act as vectors in the transmission of various diseases such as enteritis, typhoid, etc.

I wish to describe the fly control program carried out by the Saskatoon Health Department in the summer of 1948 as part of its sanitation and communicable disease control activities. According to the latest information available, this method of attack had not previously been employed in the Province of Saskatchewan.

The City of Saskatoon has been growing steadily in size and population. The latter is now estimated to be 48,795. Dwellings in the city at the end of 1948 numbered 13,279.

In recent years the City Council has been extending sewer and water lines to outlying areas. Under the "Provincial Regulations Governing Plumbing and Drainage," property owners must connect up within sixty days after receipt of an order from the Medical Health Officer. However, up to the present time this regulation has not been enforced too stringently, either here or in other parts of the province. During the war years, material and labour were in short supply, and, coupled with this, there was industrial expansion and influx of new residents which resulted in an acute housing shortage. Piping, fixtures, etc., are still difficult to obtain. Partly as a result of this series of events many families were unable to secure modern accommodation. At the present time there are about 3,000 non-modern houses in Saskatoon. With a few exceptions these have outdoor privies which constitute a potential health hazard (as they are excellent breeding places for flies) as well as a source of annoyance to neighbours.

We decided to spray these privies with D.D.T. The formulation determined upon was 5 per cent suspension of the powder in water (i.e., 1 lb. 50 per cent D.D.T. wettable powder to 1 gallon of water). An oil solution was not used because of the fire hazard. Various types of sprayers may be employed for the purpose, such as power sprayers or portable compressed air

sprayers of the cylindrical shoulder or knap-sack type. For our purpose we felt that the power sprayer would be most satisfactory.

The following equipment was used: one 3 h.p. motor for pumping, two 40 gallon tanks for the D.D.T. suspension, a length of 1″ hose, one spray gun, one tractor and one trailer. Two men were employed to do the work, one to drive the tractor, the other to do the spraying.

The operation was carried out by the City Engineer's Department but was planned and supervised by the Health Department. The material and equipment were placed on the trailer and this was connected to the tractor. It has been estimated (Twinn) that one gallon of 5 per cent D.D.T. spray is sufficient for treating about 1,600 square feet. It should be emphasized that the immediate objective in spraying is to wet the surface with a fine spray. Excess run-off is to be avoided—it is messy and uneconomical. This type of spray is known as a residual or surface spray as contrasted with air or space sprays. When the material dries, a white powdery residue remains and this is toxic to flies for a period of from two weeks to two months, depending on the amount deposited, exposure to weather, effect of rubbing or cleaning of surfaces, etc. It is interesting to note that the employee who did the spraying refused to wear a respirator or mask because of the discomfort and inconvenience, and as far as we are aware he suffered no ill effects even though he worked in an atmosphere of D.D.T. spray. However, the exposure was intermittent.

At first it was our intention to spray only the privies, but once the program was underway we decided that the cowbarns and stables should be treated as well. In all these spraying operations inside surfaces only were treated—walls, floors, ceilings, under privy seats, etc.

Considerable publicity was given to the campaign with the co-operation and assistance of the local daily newspaper and radio station. In addition to the usual methods of fly control, business proprietors (storekeepers, provision merchants, etc.) were urged to use insecticides on walls, doors and other surfaces, employing precautions as to food protection, and housewives were also requested to do likewise. As well, citizens were advised to refrain from indiscriminate dumping of garbage, refuse and other litter on city lots, backyards and lanes. Our plumbing by-law provides among other things that garbage be kept in approved receptacles covered with a close-fitting lid. The Cleansing Inspector is responsible for maintaining adherence to this regulation.

The spraying operatons began on August 9, 1948, and were completed in approximately three weeks, on September 3rd. Altogether, 2,800 outdoor privies and 53 cowbarns and stables were treated. Inasmuch as we borrowed our equipment, our expenses were small. The total cost for labour, gasoline, D.D.T. powder, etc., was $585.00.

Conclusions

It is obviously difficult if not impossible to evaluate the results, at least in a statistical sense, of such a program. Controls were not set up, and the number of units sprayed was small. A variety of other factors would also

have to be considered. Nevertheless it was the consensus that the program was a worthwhile one, that the fly incidence in August and September was low, and that the operation should be repeated in 1949.

It may be argued that the psychological effect of advertising and incidental propaganda may have unduly influenced the average citizen's thinking, but this does not lend itself to objective analysis.

Unlike other years, there were no deaths among children under one year of age reported during the summer and early autumn months which were attributed to diarrhœa and enteritis. Further, many physicians in the city advised us that intestinal disturbances were not a feature of the general morbidity picture during the usual "fly season". These facts may or may not be related to the apparent decrease in the fly population.

Regardless of theoretical or academic objections to this type of program, it is our intention to repeat the D.D.T. spraying this summer, and to continue with it as often as necessary until such time as material and labour are available for connecting up non-modern houses located on the sewer and water lines. Apropos of the latter, the City Council is investigating the possibility of giving financial aid in cases where such assistance may be required.

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Canadian Journal of Public Health

QUALIFICATION REQUIREMENTS AND MINIMUM SALARIES FOR PUBLIC HEALTH PERSONNEL IN CANADA

IN THIS ISSUE the Executive Committee of the Canadian Public Health Association presents the first revision of the 1946 report on recommended qualification requirements and salaries for public health personnel in Canada. During 1948 information was obtained from nine provincial health departments, the Department of National Health and Welfare, one hundred and thirty-three health units, and twenty-one cities regarding salary and qualification changes that had been made since 1946. The report was endorsed by the Dominion Council of Health at its fifty-sixth meeting, held in Ottawa last month, and is now offered to government agencies as a guide upon which they can base their specifications for various appointments and their salary schedule. The recommendations made by the Committee deserve careful attention. They represent the considered opinion of a professional association, offered to help to solve a situation which is seriously affecting the quality and quantity of public health work in Canada.

The survey shows clearly that public health personnel are receiving salaries which are entirely inadequate and out of line with the salaries or incomes of their colleagues in the various professions. There will be general agreement with the statement that the recruitment and maintenance of an efficient, qualified professional or technical staff by official health agencies is the major problem facing these agencies today. The report points out that it is not only the inadequacy of the minimum salaries but the even more inadequate maximum salaries which provide little or no monetary incentive. This is one of the most important reasons why well-trained workers have left public health. The small salary range, with increments usually confined to a period of five years or less, not only acts as a deterrent to recruitment but also makes it very difficult to retain competent workers. It suggests that the incumbent will reach his maximum usefulness at the end of a short term. In interpreting the report, the Committee stressed that the salary recommended is the basic *minimum* salary and have indicated an annual increment which ultimately will provide a maximum salary comparable to that obtainable in professional

positions with similar responsibility in private enterprise in the same region. Further, the basic minimum salary is exclusive of such items as cost-of-living bonus, car, room and board allowances, etc.

The American Public Health Association has also given much thought to the salary question. Recommendations of minimum salaries for physicians in full-time public health work have been presented recently,[1] indicating five salary groups. It is purposed to make recommendations regarding other public health personnel. The salary range for physicians is substantially higher than that of the Canadian report; this is in keeping with the higher salaries which pertain in the United States.

Commenting on the recommendations of the American Public Health Association, the Journal of the American Medical Association speaks editorially[2] of the acute shortage of public health personnel which now exists. It points out that the importance of public health programs and the scope and activity of public health physicians have greatly increased during the past ten years and that recognition of physicians in public health has recently been given through the creation of a Specialty Board as for specialists in other fields of medicine. The editorial concludes:

"The outstanding reason for this inadequate compensation is that such work is essentially impersonal, concerned not with individuals but with people in the mass and with environmental and social conditions as causes of disease. . . . Salary levels on which these physicians are now compensated are disgracefully low. Immediate advancement to levels at least proportionate to incomes of other medical specialists is essential to prevent further losses of trained and efficient personnel."

What has been said in regard to physicians is equally true of public health engineers, public health nurses, and all those engaged in rendering public health service.

The report of the Canadian Public Health Association will be of little value if its recommendations are not implemented. From coast to coast there is a shortage of public health personnel. Funds are now available to organize new full-time health units to provide adequate local services, but personnel are lacking. This is due in part to the many resignations that have been received as more remunerative opportunities have offered, and in part to the considerable expansion of local health services. It is encouraging that the number of postgraduate students in public health greatly exceeds the number registered in courses during the pre-war years and that, in the field of nursing, the number of nurses in training is much larger than it was ten years ago. However, the problem of obtaining and keeping public health personnel remains to be solved. The adoption of the recommendations will undoubtedly reduce the present losses and encourage many new members to enter this field.

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[1]Am. J. Pub. Health, 1949, **39**: 376 (March).

[2]J.A.M.A., 1949, **139**: 1081 (April 16).

BOOKS

Human Neuroanatomy. *By Oliver S. Strong and Adolph Elwyn. Baltimore: The Williams & Wilkins Company, 2nd ed., 1948. Canadian agents: The University of Toronto Press, Toronto 5. 442 pp., 336 figs. $6.00.*

THE BOOK commences with a general account of the organization and significance of the nervous system, followed by a detailed account of the embryological development of the human embryo. Diagrams clearly illustrate the sequence of changes commencing with the 2 MM embryo prior to appearance of somites and ending with the brain of the six and a half month old foetus. In turn the development of the mombencephalon, mesencephalon, diencephalon and telencephalon is clearly described. Cerebrospinal ganglionic neurones, lower motor sympathetic ganglionic, and pyramidal cell neurones of the motor cortex are successively dealt with. The histiogenesis of the neural elements and their segmental distribution; the spinal nerves and their ganglia with an account of peripheral terminations of afferent and efferent fibres, somatic and visceral effectors, bring the reader to the end of Chapter VII.

The next four chapters cover the meninges and spinal cord, and explain with the utmost clarity the intricacies of segmental and peripheral innervation and the fibre tracts of the spinal cord.

Throughout the book functional considerations have been kept to the fore and the chapter on the Cerebellum explains such indications of cerebellar asynergia as adiadochokinesis and decomposition of movement. Chapter XVIII contains a magnificent account of the diencephalon and corpus striatum, and embraces such phenomena as chorea, athetosis and Parkinsonism.

In a short review such as this, it is impossible to do justice to so splendid a production on neuroanatomy as this volume which bears the hallmark of teachers who know their subject and how to present it. This book should find a permanent place on the bookshelf of every anatomist, physiologist, neurologist, surgeon and pathologist. The keen medical student will also find the work a mine of information, the answer to many questions, and unbeatable value at $6.00.

C. E. van Rooyen

Bergey's Manual of Determinative Bacteriology. *By Robert S. Breed, E. G. D. Murray, and A. Parker Hitchens (Board of Editor-Trustees). 6th ed. Baltimore: The Williams & Wilkins Company, 1948. Canadian agents: The University of Toronto Press. 1529 pp. $15.00.*

THE CLAIM of the editors that "more than the usual amount of time and effort has been given toward making this new edition of Bergey's Manual useful" can be said to be fully justified. A large number of specialists have contributed to the sections in their particular fields. The task of trying to bring order out of chaos is a monumental one and the editors and consulting specialists have made a tremendous effort toward this end. The sixth edition has been considerably enlarged over the previous one. Changes have been made in various sections and the scope enlarged by the addition of supplements on the rickettsia and virus groups.

The reviewer writing from the standpoint of a medical bacteriologist cannot express a competent opinion on many sections of the manual. It is noted, however, that in the groups including human and animal pathogens several changes will be found. The Genus *Corynebacterium* and the Genus *Erysipelothrix* have been transferred from the Order *Actinomycetales* to the Order *Eubacteriales*, the former thus losing its association with *Mycobacterium*. The Genus *Staphylococcus* has been merged with the Genus *Micrococcus* and the name *Staphylococcus* dropped. This will not perhaps be as popular a change as the use of *Neisseria meningitidis* instead of *Neisseria intracellularis* which appeared in the former edition. The classification of the *Streptococceae* which—as in the previous edition—are placed in the Family *Lactobacteriaceae* reflects the complexities of the problem. Serological and pathogenic relationships cut across morphological and chemical characteristics.

The classification, the arranging into groups related by common basic characters, if such can be reasonably well defined, is the matter of basic importance; nomenclature used, whether acceptable or not to many bacteriologists, is justified in so far as it expresses these relationships and is clearly secondary in importance. The use to which any manual

or key can be put is a more immediate measure of its value. If it allows more ready assigning of an unfamiliar organism to the group it most closely resembles, its practical purpose is well justified. While medical bacteriologists use a key of this type comparatively rarely and virologists even less, if at all, workers in the fields of water, milk, soil, or industrial bacteriology, or in the field of antibiotics, will undoubtedly find it a valuable aid.

D. R. E. MacLeod

Practical Food Inspection. Vol. II—Fish, Poultry and Other Foods. *3rd ed. By C. R. A. Martin, M.R.San.I., A.M.I.S.E. London: H. K. Lewis & Co. Ltd., 1936 Gower Street, W.C. 1, 1948. 284 pages. 18s. net.*

THIS VOLUME, containing eight chapters, is presented in a readable manner, and is attractively bound. Chapter 1 deals with inspection of fish. This interesting and instructive section should be of great value to the sanitarian.

Chapter 2, on poultry and game, is also well presented; however, the portion concerning diseases of poultry could be more detailed. Moreover, lay officers in health organizations would benefit by the addition of coloured photographs and the more frequent use of drawings. The information relative to the inspection of game is probably of greater interest to sanitarians in some countries than it is to officers in Canada.

The well-prepared data on examination and inspection of fruit, vegetables, and cereals, in Chapter 3, render this volume an excellent guide for sanitary officers. The section in which canned foods are discussed contains much useful information, and makes this chapter one of the more informative chapters in Volume II.

Useful hints are presented on the subject of milk and milk production. It must be stressed that milk coolers, desirable as they are, should be fly-proof, and that, in this country, milk should be removed from the cow barn immediately after it has been withdrawn. Following the filtering process, milk should be placed in a sterile can, which is immersed in a tank equipped with either a refrigeration unit or a supply of ice water, or, in other instances, placed in a cool room (temperature, 36° Fahrenheit). Such equipment obviates the necessity for the undesirable open type of milk cooler. More emphasis should be given to sterilization, by chemical means, of all utensils on the dairy farm.

Greater stress might justly be given to the manner in which samples should be submitted for laboratory examination. The folly of endeavouring to isolate *S. typhi* from milk, rather than instituting a search for carriers amongst the milk producers or handlers, should also be emphasized.

The data in Chapter 6 on non-alcoholic beverages could be improved by the addition of definite instruction relative to sanitation of plants which produce such beverages. Chapter 7, which deals with food poisoning, offers certain useful information to the junior lay inspector, but has a limited value. Several good suggestions, which should be adopted by Boards of Health, are contained in the chapter on legal procedure.

The value of this book could be considerably enhanced by greater stress on the method of collection and submission of specimens for examination. There might also be greater elaboration on storage of meat and other foods, including more information on quick-freezing processes. Nevertheless, this volume is one of the better books available on the subject of food inspection for lay officers, and should prove an acceptable and useful guide to the sanitary officer.

A. L. MacNabb

Studies in Air Hygiene. *Medical Research Council, Special Report Series No. 262. London: His Majesty's Stationery Office, 1948. 7s. 6d. net.*

This report is a collection of the studies of R. B. Bourdillon and his associates. The studies are divided into four groups: (1) methods of sampling air for bacteria including methods for testing the efficiency of air disinfectants; (2) the various methods of disinfecting air and the conditions in determining their effectiveness; (3) measurements of the contamination by living organisms of the air in factories, naval vessels, hospitals, operating theatres, air-raid shelters and other places; (4) a few studies on the transmission of air-borne infection in animal experiments.

The Medical Research Council, in presenting this work, points out that there is much that is still obscure about the mode of transmission of air-borne disease and it must not be assumed that an unselective reduction in the number of bacteria in the air of build-

ings where healthy people congregate would necessarily be matched by a lessened incidence of overt infections. Field trials now being organized by the Council's Committee on Air Hygiene are designed to throw light on these problems.

The air-testing methods that are discussed are presented as giving an accurate quantitative method of measuring the bacterial content of the air, and the Research Council point out that it might be of great benefit to public health if standards of ventilation were based on measurements of bacterial content instead of, as at present, "on the subjective test of body odour."

J. H. Baillie

NEWS

Indian Medical Care

UNDER THE INDIAN HEALTH BRANCH of the Department of National Health and Welfare, 1,700 Indians are receiving treatment for tuberculosis in hospitals. The death rate has been reduced from 800 per 100,000 to 500. Eight million dollars has been provided in this year's budget for Indian and Eskimo health work.

Health Services at Universities

THREE UNIVERSITIES in Canada have received grants totalling more than $24,000 to enable them to provide new public health services in their areas. At the University of Western Ontario the grant will be used to finance a "workshop" in clinical psychology; at McGill University, to develop a children's health program in Lachine; and at Dalhousie University, to purchase x-ray equipment for the medical school's pre-natal clinic and teaching hospital in obstetrics.

British Columbia

THE NEW Crease Clinic of Psychological Medicine and the provincial mental hospital at Essondale will be enabled to purchase equipment with funds from the national health grants. The Crease Clinic, now under construction on the grounds of the mental hospital, will be an active treatment and research centre for short-term mental illnesses. The hospital is being accepted as a teaching unit for psychiatrists, public health workers, nurses and occupational therapists, and as a training centre for laboratory technicians. The total patient and staff population at Essondale is about 4,000.

TEACHING FACILITIES for student nurses are to be improved at the provincial mental hospitals in Saanich and New Westminster. At the latter hospital new equipment will be purchased for the laboratory to provide better service for the 900 patients.

A MENTAL HEALTH PROGRAM is to be established in Greater Victoria under the direction of a psychiatrist. In Greater Vancouver the work already being done along these lines will be extended by the addition to the staff of a psychiatrist, a psychologist, and a psychiatric social worker.

Saskatchewan

LEGISLATION passed at the 1949 session of the Saskatchewan Legislature has made this province the second in Canada with statutory provision for compulsory pasteurization of milk. The Public Health Act was amended, the new provision applying to milk sold, offered, or delivered in cities and towns of 1,000 or more population, or any urban municipality designated by order-in-council. The Minister of Public Health may temporarily exclude a town with population of 1,000 or more if a valid reason is shown.

BY AN AMENDMENT to The Mental Hygiene Act, the Saskatchewan Legislature has provided for treatment of alcoholics and drug addicts in provincial mental hospitals by voluntary commitment or district court judge's order. In Saskatchewan all mental services, including treatment and maintenance of patients in the provincial institutions, are provided at public expense.

BY AN AMENDMENT to The Cancer Control Act, the Saskatchewan Legislature has excluded persons suffering from non-cancerous conditions from receiving full benefits provided at public expense. Saskatchewan has experienced a problem in the cancer clinics caused by a marked increase in medical and clerical work due to persons with non-cancerous conditions who have been referred by their medical practitioners. The act has been changed so that persons not suffering from cancer may be charged a small fee and will be responsible for payment of surgical and medical services by physicians not on the staff of the Saskatchewan Cancer Commission.

THE AIR AMBULANCE SERVICE of the Saskatchewan Department of Public Health recently marked the third anniversary of its inauguration. In three years 2,000 patients have been flown to urban medical and hospital care from farms and rural communities. The fleet of aircraft have flown one million miles without accident. The average flight is 285 miles, and three flights daily are normally made.

Manitoba

THREE NEW STAFF APPOINTMENTS this month have brought Manitoba's health unit medical personnel close to full strength. Of the 13 local units now in operation, 12 have full-time medical directors. Dr. E. Mastermateo, a graduate of the University of Toronto, has assumed his duties as director of the Virden unit. Dr. V. S. Hawks has been appointed to the staff of the Stonewall unit, and Dr. John Nelson has arrived from Glasgow to take a post as medical director of the Northern health unit at Flin Flon. Dr. Nelson is a graduate of the University of Glasgow and the Royal Institute of Public Health, London.

DR. RUTH MCDOUGALL, former medical director of the St. Anne health unit, resigned in March to assume her new duties as Director of Maternal and Infant Hygiene in the Province of New Brunswick.

DAUPHIN HEALTH AND WELFARE Centre will now serve close to 18,000 people. Last month municipal officials in the village and rural municipality of Gilbert Plains voted to join the health and diagnostic unit.

ST. JAMES-ST. VITAL UNIT will soon be the largest Manitoba health unit in operation. With the opening of a sub-station in Fort Garry, this unit will serve over 37,000 people in suburban Winnipeg.

JUST OVER TWENTY YEARS AGO, Miss Gertrude Childs was appointed Supervisor of Mothers' Allowances, following a Royal Commission Report on Child Welfare in Manitoba. Last month, Miss Childs retired with a record of twenty years of public service as Supervisor of Mothers' Allowances, Secretary of the Child Welfare Board (1929-1945), and administrator and consultant in the Mothers' Allowance Branch of the welfare division. In recognition of her services, the staffs of the health and welfare divisions presented Miss Childs with a silver entrée dish at a ceremony held in her honour.

Ontario

THE NEW mental hospital for children at Smiths Falls, providing for 1,200 patients, is expected to be opened before the end of the year. Consideration is being given to a new 100-bed mental hospital for adults to serve north-western Ontario.

SINCE APRIL, 1947, plans have been prepared for 80 hospitals in 67 municipalities which will provide 7,740 beds and 1,220 bassinets. Fifteen projects have been completed and 25 others are under way. Funds have been voted in other cases.

THE ONTARIO GOVERNMENT has decided to establish a hospital for the treatment of alcoholics, both men and women. It will be the first publicly owned and supported institution of its kind in Canada and will be under the direction of a commission. The Honourable J. Earl Lawson has been named chairman of the commission.

A SUM OF $4,500 has been set aside to pay salaries of 18 final-year medical students for two months' summer work in public health units in various parts of the province. The students will work under the close supervision of the medical director of the health unit.

THE DISTRIBUTION of free penicillin to private practitioners for the treatment of early syphilis has been broadened recently to include cases of late syphilis. The patients submitted for treatment must be approved or recommended by consultants of the division of venereal disease control.

ONTARIO HAS SIGNED an agreement with the Federal Government under the terms of the National Physical Fitness Act. The Province is now eligible to receive a matching Federal grant of about $74,000. The present agreement, which is on a yearly basis, is now held by all provinces except Quebec and Newfoundland.

POSTGRADUATE TRAINING in recreation and physical fitness will be encouraged by the provision of financial aid from the Federal Government. Qualified Canadian graduates may apply for awards which range from $500 to $1,000, and a maximum of eight applicants will be accepted at any one time.

EIGHTEEN more hospitals will be provided with special x-ray equipment enabling them to check every patient admitted for tuberculosis. These hospitals have a smaller bed capacity than those equipped similarly several months ago.

HOSPITAL CONSTRUCTION grants which will assist eight hospitals to add a total of almost 400 beds to their capacity have been approved by the Federal Government. The hospitals which benefit are: the Cornwall General Hospital, 90 beds; St. Joseph's General Hospital, Peterborough, 65 beds; the Oshawa General Hospital, 18 beds; and the Cobourg General Hospital, which is expanding to a bed capacity of 32. In addition, entirely new institutions which are being built include the Trenton Memorial Hospital, 70 beds; the Oakville-Trafalgar Memorial Hospital, Oakville, 50 beds; the Haldimand War Memorial Hospital, Dunnville, 53 beds; and the West Lincoln Memorial Hospital, Grimsby, 36 beds.

THE TRUSTEES of the King George V Silver Jubilee Cancer Fund have authorized a third payment of $150,000 toward the work of the National Cancer Institute of Canada. This is a final payment of a total of $450,000 which was agreed in 1947 to be placed at the disposal of the Institute for the furtherance of research.

Quebec

THE DIAGNOSIS AND TREATMENT of tuberculosis in Montreal will be extended through the purchase of x-ray and other technical equipment by the Antituberculosis League of Montreal and the Nôtre Dame Hospital. Last year the League x-rayed about 160,000 persons, including the complete personnel of 521 companies, but its activities were restricted by lack of funds. Eventually it hopes to increase its survey to reach 300,000 persons a year. At the Nôtre Dame Hospital chest x-rays will be given to all patients admitted to hospital or attending the outpatient department, about 25,000 persons annually.

MEDICAL AND TECHNICAL equipment costing more than $489,000 will be purchased for six sanatoria with federal funds. The institutions to benefit are the Cooke Sanatorium, Three Rivers; the Gaspé Sanatorium, Gaspé; St. George Sanatorium, Mont Joli; the Bégin Sanatorium, St. Germaine du Lac Etchemin; the Sacred Heart Hospital, Cartierville; and the Macamic Sanatorium, Abitibi. Four of these hospitals have also received federal assistance through the hospital construction grants.

New Brunswick

THE FIRST of two semi-annual conferences of provincial district medical officers of the Department of Health will be held in Fredericton during the first week in May.

THE 31ST ANNUAL report of the Chief Medical Officer states that the tentative death rate for tuberculosis has dropped to 46.2 per 100,000, which is the lowest figure on record. The tuberculosis control measures are being kept at the highest possible peak so as to make tuberculosis the controllable disease that it can be.

TWO NEW CANCER diagnostic clinics were recently opened, making a total of nine cancer diagnostic clinics for the Province.

DENTAL HEALTH SERVICES will be expanded among the school children of Saint John by placing the present dental clinic in full-time operation and by opening a new clinic in the east side of the city.

Nova Scotia

THE DIAGNOSIS OF TUBERCULOSIS will be extended by the purchase and staffing of a new mobile x-ray unit and generator. X-ray equipment will also be bought for the Victoria General Hospital, Halifax. Additional equipment will be provided for the Nova Scotia Sanatorium to enlarge teaching facilities for both graduate and undergraduate nurses and doctors.

A TRAVELLING TEAM of two surgeons is to be organized to carry out specialized types of surgery outside the Nova Scotia Sanatorium.

Prince Edward Island

PUBLIC HEALTH NURSING SERVICES will be extended and a provincial division of sanitary engineering will be established with the assistance of federal funds. Nine new nursing units will be set up in rural areas in a manner to include the largest possible number of schools. The division of sanitary engineering will have three sections dealing with food, water, and environmental sanitation. It will provide a consultative service for the Departments of Agriculture and Education.

A VARIETY of new health projects have been approved for federal assistance. These include crippled children's work, a mental health program, and professional training. Under the latter, seven girls are to be trained as laboratory technicians.